

**HUMAN RESOURCE STRATEGY EVALUATION AND CONTROL,
INFORMATION CHARACTERISTICS AND PERFORMANCE IN HIGHER
EDUCATION: A SURVEY OF UNIVERSITIES IN KENYA**

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**A Thesis Submitted to the Institute of Postgraduate Studies in Partial Fulfilment of the
Requirements for the Award of Doctor of Philosophy in Business Administration
(Human Resource Management)**

KABARAK UNIVERSITY

NOVEMBER 2022

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The research thesis entitled “**Human Resource Strategy Evaluation, Human Resource Strategy Control, Information Characteristics, and Performance in Higher Education Institutions: A Survey of Universities in Kenya**” written by **Isaac Masibayi Ole Sophia** is presented to the Institute of Postgraduate Studies of Kabarak University. We have reviewed the research thesis and recommend it be accepted in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy in Business Administration (Human Resource Management).

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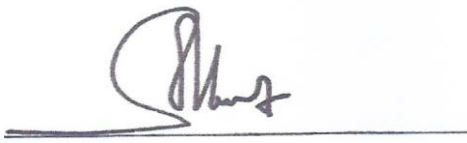


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DEDICATION

I dedicate this modest work of scholarship to our parents: Masibai Tumberia and Resper Masibai; the late Leonard Kamau and the late Hannah Kamau. They pointed us towards the ultimate source of knowledge as justified true belief, the Word of God.

ACKNOWLEDGEMENTS

Work of this magnitude requires support and involves many actors some of whom may not even realise that they are taking part. I appreciate some of them here. I am deeply thankful to my supervisors, Dr. Simon K. and Prof. Ronald K. Chepkilot for their patient and collegial guidance. The two dons epitomise the evolving nature of the supervisor-student relationship. My wife, Mary Sophia, was persistent, consistent and focused in her spiritual, moral, and material back up. The pace of the study, though, occasionally caused her some anxiety. Our children Kevin Lemayian, Brian Mayiana, Leon Lekishon, and Hope Naserian were very much available not only to keep their father company but also to marvel at the volume of paperwork, besides competing stiffly for the limited computing facilities at home. Library staff at Kabarak, Kenya Methodist, and Egerton universities was not only helpful in their guidance to the useful resources but they also got used to researcher's extraordinarily long stay in these repositories of knowledge. Successive directors at the Kabarak University's Institute of Postgraduate Studies were generous in their encouragement and helpful advice. Estone Lugairi, a contemporary PhD candidate, and Dr. Robert Mugo provided the impetus for the researcher to acquire the skills in data analysis. Dr Eliud Garry Michura took a keen personal interest in the progress of this work, being a scholar himself, as did his spouse, Dr. Anne Jerotich Garry, who also was slightly ahead on a similar mission. I recognise colleagues at the Kenya Methodist University and fellow Kabarak University students for companionship and deep insights concerning research and the management discipline. Those I have not been able to name and who in one way or another made some contribution to this modest work of scholarship, I sincerely appreciate.

ABSTRACT

Along with the debate on universities as specific organisations is the drive for adoption of marketlike practices among which the strategy process is prominent. The primacy of the human factor in higher education institutions privileges human resource initiatives. The human resource strategy is particularly significant. Theoretically, human resource strategy actualises business strategy; but evidence for its practicality is scarce. This brings to the fore strategy evaluation and control. Although strategy evaluation and control is vital in corporate and business strategy discourse, it is apparently less so for human resource strategy. Extant literature indicates lack of evidence of use of strategy evaluation and control in human resource strategy. Thus, the purpose of this study was two-fold: to domesticate the business strategy evaluation and control dimensions to human resource strategy in universities in Kenya; and to establish the relationship between utilisation of those dimensions and the performance of the human resource strategy, directly and indirectly through the mediation of information characteristics and the moderation of top management support. The rationale of this inquiry was to narrow this gap in the literature. This study was considered important to top management and human resource specialists for the need to show the strategic role of human resource systems and practices by justifying their worth in harnessing the human potential. Five theories supplied the constructs and explanations: the strategic management model; data, information, knowledge and wisdom model; role theory; systems theory; and institutional theory. These anchored evaluation and control dimensions, information characteristics, top management support, and performance constructs respectively. Institutional theory underpinned context. The study, a cross-sectional sample survey, was carried out in Kenyan universities, a population of 74 from which the investigator drew a probability sample of 34 using a table of random numbers. The unit of analysis was the human resource function and Registrar (Administration) the respondent. Data was collected using a self-administered questionnaire tested for reliability and validity on 12 universities. The researcher mailed the instrument to 34 vice chancellors for approval and completion by the registrars, achieving a 94% response rate. Data was processed using the Statistical Package for Social Science (SPSS) Version 25 with AMOS 21 and analysed using descriptive and inferential statistics. Six hypotheses were tested at 5% level of significance. The direct relationship between human resource strategy evaluation and performance was positive and significant ($r = .61, p\{0.000\} < 0.05$; $b = .61, p\{0.000\}$) as was the direct relationship between human resource strategy control and performance ($r = .71, p\{0.000\} < 0.05$; $b = .71, p\{0.000\}$). In mediation, partial correlation between human resource strategy evaluation and performance was moderate and significant ($r = .34, p\{0.034\} < 0.05$). Sobel's test for path analyses was significant ($z = 2.86, p\{0.000\} < 0.05$). Partial correlation between human resource strategy control and performance was moderate and significant ($r = .60, p\{0.000\} < 0.05$). Sobel's test for path analyses was significant ($z = 3.31, p\{0.000\} < 0.05$). Moderation of top management support on human resource strategy evaluation-performance link was not significant ($b = .006, p\{0.749\}$) as was moderation of top management support on human resource strategy control-performance link ($b = -.001, p\{0.959\}$). The conclusions were: business strategy evaluation and control dimensions were relevant and positively influenced performance; information characteristics mediated the direct relationships, and top management support was more to management support as found undesirable. Policy recommendations included using the dimensions in performance management. Future studies could include employees, heads of departments and other members top management members as well as use mediated moderation and moderated mediation.

Key words: Human Resource Strategy Evaluation, Human Resource Strategy Control, Information Characteristics, Top Management Support, Performance.

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LIST OF ABBREVIATIONS

BSC	Balanced Scorecard
CSFs	Critical success factors
CUE	Commission for University Education
DIKW	Data, Information, Knowledge, Wisdom
DUC	Differentiated Unit Cost
EFA	External Factor Analysis
EFE	External Factor Effect
GoK	Government of Kenya
GPE	Global Partnership for Education
HE	Higher Education
HEI/IHE	Higher Education Institution(s)/Institution(s) of Higher Education
HRSEC	Human resource strategy evaluation and control
HRSC	Human resource strategy control
HRSE	Human resource strategy evaluation
ICT	Information and Communication Technology
IFA	Internal Factor Analysis
IFE	External Factor Analysis
IPO	Initial Public Offering
KPI(s)	Key Performance Indicator(s)
KSAOs	Knowledge, skills, abilities, and other characteristics
LIA	Letter of Interim Authority
MCS	Management Control Systems
MOOCS	Massively Open Online Courses
NACOSTI	National Commission for Science, Technology and Innovation
NCIC	National Cohesion and Integration Commission
OC	Operational control
PhD	Doctor of Philosophy
RoK	Republic of Kenya
SoB-BOU	School of Business at Bangladesh Open University
SC	Strategy control
SCIPRC	Southern California Injury Prevention Research Center
SE	Strategy evaluation
SEC	Strategic evaluation and control
SEM	Structural Equation Modelling
SHRM	Society for Human Resource Management
SPSS	Statistical Package for Social Science
SSA	Sub-Saharan Africa
TMS	Top Management Support
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
USD	United States Dollar (US)

OPERATIONAL DEFINITION OF TERMS

Human Resource Strategy Evaluation: the process of rigorous, periodic, and retrospective assessment of the human resource related moves to support business strategy with a view to establishing their validity and workability in higher education human resource strategy of the business strategy evaluation dimensions namely Consistency, Consonance, Feasibility, and Advantage. In this study, human resource strategy evaluation served as an independent variable (Pearce & Robinson, 2011).

Human Resource Strategy Control: a process of ensuring the continued fit of related organisational moves to support business strategy and correcting deviations thereof using the dimensions of business strategy control namely Premise, Implementation, Surveillance, and Special Alerts for the human resource strategy at university human resource units in Kenya. In this study, human resource strategy control served as an independent variable (Barnat, 2018).

Information Characteristics: strategic, tactical, and operational attributes of processed, incoming stimuli from from the internal and external environments of higher education captured by the human resource information systems at the human resource units at universities in Kenya. This variable served the meditational or intervening purpose (Hasan *et al.*, 2011).

Top Management Support: the role behaviours of senior executives in higher education institutions that enhance the utilisation of human resource strategy evaluation and control, which selected behaviour constitute resource allocation, commitment, involvement, and

communication for the human resource strategy at university human resource units in Kenya. In this study, top management support served as a moderator (Iqbal *et al.*, 2015).

Performance: production of value at predetermined levels, the end result of organisational activities. In this study, performance was the outcome of utilisation of human resource strategy in terms of efficiency, effectiveness, and impact at university human resource units in Kenya (Lawler III, (2015).

Higher Education Institutions: post-secondary school educational entities, in this case universities operating in Kenya as chartered by the Commission for University Education (CUE, 2014).

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Management effort, in theory and practice, gets its impetus from the idea and reality of organisations in society. From the Pre-classical, through the Classical, Neo-classical, and Modernist thinking, the conceptualisation of management, its functions, and processes rests on the nature, context, and outcomes of organisations (Agobua *et al.*, 2017). These phenomena have assumed a central place as actors in society. And they are essential for progress (King, 2017, as cited by Mair & Seelos, 2021). But they also generate problems such as the reproduction of inequalities (Amis *et al.*, 2020) and corruption (Castro *et al.*, 2020). Thus, organisations attract considerable managerial, scholarly, and regulatory attention.

Literature discusses organisations in the sense that they are real, objective entities. In a sense they are. But it is not the only sense. Fundamentally, organisations are intangible relationships. They are mostly inferred from the behaviour of the individuals who constitute them (Njehia & Gachara, 2009). Gareth Morgan (1986, as cited by Njehia and Gachara, 2009), conceptualises an organisation through metaphors: co-ordinator of actions; independent agent; network of contracts; processor of information; collection of resources; and system.

As entities, organisations are social units for collaborative value creation and delivery. Entrepreneurs establish them as tools to capture value (Drucker, 1992). As relationships, organisations constitute two or more people working together to pursue a common goal. That way they enable societies to pursue and attain accomplishments individuals would not acting separately (Gibson *et al.*, Donnelly, 1997). This perspective is significant for this work of scholarship.

Yet regardless of perspective, organisations are expected to be performant. And for that reason, all practices and routines therein have their focus thereof. Human resource strategy and its evaluation and control are no exception. To perform, organisations have to be less abstract and more concrete. Thus, they divide into units that enable execution of tasks and assumptions of responsibilities (Lacoma, 2019). Splitting up the organisation is the first step in task decomposability (Kenis & Raab, 2020).

The division is both horizontal and vertical. In the formative stages, organisations horizontally split into Production/Operations Management, Financial Management, Personnel/Human Resource Management, and Marketing Management (Agwu & Onwuegbuzie, 2017; Jiang, 2009). This is functional differentiation. Production management coordinates the core value-creating activities such as product conception and design, planning, forecasting demand, the input-throughput-output process, and quality control. Financial Management deals with the flow of money. The role of Marketing Management is customer-focussed, for example marketing research, sales forecasting, promotion, channel distribution, product packaging, and pricing. Human Resource Management handles people, work and its environment, specifically their acquisition, maintenance, and separation with people (Aswathappa, 2008). Differentiation, therefore, creates functional specialties (Skripak, 2016).

So central is the concept of division of labour Adam Smith considered it basic to the wealth of nations (Depetris-Chauvin & Özak, 2018). And Henri Fayol lists it first among the 14 principles of management (Uzuegbu & Nnadozie, 2015). Blau (1970) put forth a theory of differentiation in terms of space, hierarchy, occupation, and, pertinent to this study, function or purpose. At the heart of organisation structure, effectiveness and efficiency are contingent upon differentiation.

Although the structural differentiation within organisations is obvious as to be taken for granted, the nature of the organisation, its growing complexity within a broader even more complex, high velocity change context constantly reminds theoreticians and practitioners alike of the need to rethink this division of the organisation into roles and departments with an eye on acceptable organisational performance. In this regard, the human resource management appears the most troubled of the functional specialties. Its contribution constantly comes under scrutiny.

Structuring organisations, then, involves differentiation, both vertical and horizontal, as well as the constitution of integrating mechanisms that ensure units are sufficiently coordinated so as to guard against a silo mentality among differentiated units. Vertical differentiation locates decision-making responsibilities within a structure in terms of centralisation or decentralisation, and also sets up layers in the hierarchy in terms of tallness or flatness of structure (Skripak, 2016). Horizontal differentiation is what gives rise to organisational subunits and also divides management horizontally into functional areas. The interplay among these types of differentiation has implications for the performance of individuals, work groups, functional units, and entire organisations themselves. Alignment or integration, in vertical and horizontal terms, is at work in this interplay (Salimian *et al.*, 2012).

Organisations and their divisionalised units exist to accomplish something, defined in terms of goals and objectives, which are derivatives of mission. Management, in its various specialised areas, assures the achievement of value-adding organisational goals (Magretta, 2003, as cited by McCrimmon, 2010). According to Lloyd and Aho (2020), organisations pursue their purpose through four basic functions: planning; organising; leading; and controlling.

Shifts in the paradigms of management aim to ensure value-adding activities are efficient and effective (Ali, 2010). Environmental changes trigger shifts in paradigms so that in the 21st Century, the orientation of management is towards constant change rather than stability (Jamali, 2005). This is the reason strategic management emerged (Bindra, *et al.*, 2019), and has continued to be attractive to management research and practice. This study aimed to extrapolate this thinking about organisations to higher education institutions, for they are embedded in environments just like organisations are, and in which contextual factors are just as influential.

To the extent that higher education institutions coordinate actions, are agentic, collect resources, organise as systems, and process information (Gareth Moragn, 1986 as cited by Njehia & Gachara, 2009), they qualify as organisations. As such they are subject to managerial processes, including the strategy process most universities have embraced. Environmental pressures continue to push universities towards organisation actorhood (Tomlinson, 2018; McKenna, 2018).

Thus, arguments abound that along with the increasing corporatisation of the university, there is a shift to managerialism, the casualisation of labour and the installation of performance metrics leading to disempowered, 'auditable', 'self-interested', and held in-check academics (Al Adawy, 2021). Like all organisations, even incomplete ones, higher education institutions depend on people for their efficacy and debates about their performance come down to people. According Kehm (2013) organisations are more dynamic and characterised more strongly by division of labour and hierarchical coordination compared to institutions.

Still, however, higher education is characterised as institutional and, thus, continues to defy characterisation as organisations. They, thus, remain incomplete organisations (Kehm, 2013). According to Esser (2000, as cited by Kehm 2013), institutions constitute rules and regulations with normative validity that influences the social behaviour of individuals and groups. Universities, for example, are centrally placed in relation to society's institutional order, are polysemic, and quasi-sovereign (Eaton & Stevens, 2020). These features make evaluations and control problematic. According to Kehm (2013), higher education institutions are both institutions and organisations.

Institutions are societal establishments that generate and transmit knowledge. Organisational units comprising teachers, researchers, students, administrative staff, and leadership who cooperate with each other through a division of tasks. Drucker (1992) notes institutions, notably society, community, and family are conserving; they maintain stability. The organisation on the other hand is not a conserving institution. According to Drucker (1993), the modern organisation is essentially a destabiliser, having the need to engage with innovations that disrupt the status quo in order to survive and thrive. For the university, that is a breeding ground for tension.

The identity crisis of the university becomes a source of a practical crisis. Crisis has implication on performance. Drucker (1992) observed Japanese universities, for example, as 'singularly change-resistant'. Yet change is inevitable. The problematic identity of the university challenges conceptualisations of performance and the derivation of its criteria.

Higher education institutions deliver higher education, itself a component of education in general. Education denotes ‘the transmission of the values and accumulated knowledge of a society’ (Meyer, 2021). In Kenya, the education sector consists of six sub-sectors which are Early Learning and Basic Education, Vocational and Technical Training, University Education, Post Training and Skills Development, Implementation of Curriculum Reforms and Teachers Service Commission (RoK, 2018). According to Power *et al.* (2015) higher education denotes ‘optional, formal education in specialised fields undertaken after completing secondary education’. According to Bastian (2016) the higher education industry comprises three main categories: public; private non-profit; and private for-profit institutions.

Despite that higher education institutions comprise all post-secondary entities, debates about them always come down to universities. Higher education institutions have four broad functions (Bergan & Damian, 2010): preparation for sustainable employment; preparation for life as active citizens in democratic societies; personal development; the development and maintenance of societies via a broad and advanced knowledge base. Their performance should reflect these functions.

That higher education institutions in the world today are agents of development is an uncontested notion. The rise of the knowledge economy has pushed universities to the centre stage of developmental discourse (Hilman & Abubakar, 2017) as has the need to address the world’s wicked problems. Traditionally, the institutions served to develop the elite and pioneer breakthroughs in the sciences and humanities (Chankseliani *et al.*, 2021). Today they are essentials for development (Morgan & White, 2015; Ryan, 2006). And the three-fold returns from investment thereof namely private market returns, private non-market return, and social benefits externalities (APLU, 2014) are attractive.

Wells (2017) notes that the pressure on higher education institutions to globally engage as their unprecedented and intricate intertwinement with the 'economic, social and environmental fabric of the modern world' increase. The institutions not only develop a pool of talent for other sectors of the economy (PAT RESEARCH, 2021) but are economic agents in their own right (Koprowski, 2016). According to PAT RESEARCH (2021), stakeholders spent 5.6 trillion United States (USD) dollars on higher education annually. Fortune Business Insights (2021) reports that the global higher education market reached USD 1,090.87 billion in 2019 and will hit USD 2,367.51 billion by 2027.

The effort, though, of higher education institutions in building human and other capacities in society meets a number of problems. The challenges are philosophical, systemic, and institutional. At the global level, Robertson (2010)'s typology of these challenges is instructive: the widening access vis-à-vis the value of credentials; pedagogy in the face of massification; regionalising and globalizing vis-à-vis relevance to the local; expanding role of the for-profit Higher education institutions and the need for accountability; and the changing role of the public intellectual.

According to Višňovský (2019), the pressures of globalisation, europeanisation, informatisation, neoliberalism, and academic capitalism lead to marketisation, corporatisation, managerialism, economism, and bureaucratism. These philosophical issues alter the nature of the university. And these logics implicate policy and the adoption of managerial practices. The consequences of the sum total of the pressures and trends around higher education is to compound and complicate crisis. Higher education institutions the world over are associated with crisis (Brenan & Stern, 2017; Pavlenko & Bojan, 2014; World Bank, 1994) which exacerbate performance challenges.

Pavlenko and Bojan (2014) consider the identity of the university to be at the heart of crisis, noting the many demands made on the university tend to confuse its role. With the increased pace of dynamism in the context in which the Higher education institutions operate (Babalola & Taiwo, 2016), the crisis continues to grow in intensity (Burrawoy, 2015). They also appear the most intractable of all challenges higher education institutions face as they present confrontation with stakeholders, particularly governments. Higher education institutions have autonomy in determining policies and managing education (Kurniasih, 2020).

Systemic challenges, which the incessant change in macro context generates, affect all Higher education institutions without exception. Context includes economic, competitive, politico-legal, and social variables (Altbach, 2019). Among the factors of discontinuous change include: globalisation; internationalisation; uncertainty; competition; financial crises; digitalisation; emerging countries; and technological advancement (Babalola & Taiwo (2016). These lead to specific operational challenges: underinvestment; low salaries; limited autonomy; and loss of talent particularly from Africa (Khaled, 2021; Mbithi *et al.*, 2021); and diminishing financial resources for research and equipment (Natow, 2021).

There are some of these challenges that are specific to sub-Saharan Africa. Bateman (2008) identifies these as: definition of relevance; ensuring relevance; participatory development; meeting demand; inadequate financing; enabling diversification; gender equity; human immune deficiency virus/acquired immune deficiency syndrome; inadequate information communication technology infrastructure; inadequate research and knowledge sharing; and adapting to changing modes of delivery. Zeleza (2015, as cited by Hahn, 2019) outlines key challenges institutional face: resources; faculty and other key staff; research outputs; and leadership. Hahn (2019) adds governance and strategy, and Mugimu (2019) ICT.

The philosophical and systemic issues around these institutions ultimately impact the internal mechanisms within institutions. They then spawn institutional challenges. Grandos (2018) observe that among the critical challenges in universities are those at the level of internal organisation. Dei *et al.* (2019) and Hilman and Abubakar (2017) noted widespread shortage of human resources at the higher education institutions. This is both in qualitative and quantitative terms. Musakuro and De Klerk (2021) report the challenges of the attracting and retention of academic staff. They also note the incidence of poor succession planning, as did Teague (2015). It is noteworthy that some universities in Kenya have in the recent past had incidences of troubled transitions to the office of the vice chancellor.

These challenges require universities to adopt new approaches. That means change, which ideally should not be problematic for according to Sultana et al (2009), education is considered as tool for change. In particular, the institutions need to innovate (Diamond, 2006). This is necessary to achieve relevance, excellence, and agility (PA Consulting, 2022) among others. But Drucker (1992) points out that these institutions are resistant to change. Siemens and Matheos (2022) note that resistant to change results in a mismatch of the institutions with with societal needs.

The foregoing is not alien to Kenya's system of higher education whose apex comprises 74 universities and constituent colleges (Commission for University Education, CUE, 2016). According to the World Bank (2019), Kenya's higher education faces a dire financial situation. According to Kitavi (2017), massification of higher education, marketisation of education, student mobility, and university ranking are some of the impacts unleashed on the higher education context by globalisation.

According to Boit and Kipkoech (2012), the shortage of academic staff, concerns for quality and equality of opportunity, and shortage of funds are the key challenges at universities. In a study, Mbirithi (2013) found heavy teaching load, lack of office space, access to support teaching material, relatively low remuneration, and dishonoured terms of service as the key management challenges in universities. As higher education institutions come under pressure to self-sustain financially, financial measures will assume greater role. And they also have implications on human resource.

Despite the trends, pressures, and challenges, higher education institutions are required to perform and to show that they do. Thus, higher education institutions need to adapt to change (Ali, 2012) to meet this challenge; their traditional stance of autonomy may preclude them from being 'answerable'. One approach is adoption of strategic management (Babalola & Taiwo, 2016), which, Oswagwu (2001) observes, concerns itself with the efficient and effective utilisation of human and non-human resources. Strategic management is the utilisation of strategy in management. In higher education, strategic planning has emerged as the strategy process of choice; but there are other tools. Patro (2016), for example, has analysed attempts made to apply the Balanced Scorecard (BSC) to higher education institutions. Some of the higher education challenges, though, require intervention by national governments (Mbithi *et al.*, 2021).

In Kenya, public and regulatory pressure on universities has been particularly sustained. The Universities Act, 2012 (Republic of Kenya, RoK, 2012), regulations by the Commission for Higher Education (CUE, 2016), declining funding and numbers (Zezeza, 2020) are examples. These have implications for human resource management initiatives among them the human resource strategy.

The requirement by Commission for University Education for university lecturers to have the Doctor of Philosophy (PhD) degree as minimum to teach (CUE, 2014) and court reversal (Kenya Law, 2019) is a case in point. There are also requirements by professional bodies such as the Human Resource Management Professionals Act (Republic of Kenya, 2012).

The world economic regime is said to be that of knowledge economy. And universities are producers of knowledge. But then some writers, for example Menon (2015), note that although universities train a wide array of specialists including those in human resources, they themselves rarely utilise the expertise. The unrelenting change in context, however, compels higher education institutions to adopt tools used by market-oriented organisations (Devonald, 2019). Human resource management perspectives and tools are, therefore, imperative. Human resource management is a sub-management practice. As such human resource management is performed by managers and utilises the four basic managerial activities. These are planning, organising, leading, and controlling (Heathfield, 2021; DeCenzo & Robbins, 1988).

The inevitability of the controlling function in organisations arises from management's essentially oversight role given that managers, according to Bateman and Snell (2007), work with and through other people. Control and evaluation are co-joined. This notwithstanding the disrepute associated with controls, especially of the bureaucratic genre (Droege, 2019). As a basic managerial activity, controlling closes the cycle of the processual activity that is management (Stoner *et al.*, 2009). And since the process of management is interactive, elements of controls are found dotting the other management sub-processes (Stoner *et al.*, 2009). In Digman (2003)'s view management is basically control due to the centrality of the need to verify claims of what has been done and how it has been done.

In theory human resource management is, therefore, a well-established management function (Aswathappa, 2008). Similarly, the position of human resource management controlling in organisational control is undisputed, not only through the obvious processes of planning, appraisal, and discipline but through the entire Human Resource Wheel of the American Society for Training and Development (ASTD, 1983 as cited by Byars & Rue, 1997). Similarly the role of human resource as knowledge, skills, abilities and other characteristics (KSAOs) embedded in individuals in the conduct of organisational affairs is fairly straight forward.

What remains entangled in unending debate is the actual contribution of the human resource function and its initiatives including human resource strategy and ultimately human resource strategy evaluation and control. But high velocity change and crisis, such as confront universities in Kenya today, exert pressure on organisations and their subsystems to show relevance and contribution (Schendel & Hoffer, 1979; Peiseniece & Volkova, 2010); and there is temptation to sacrifice activities that fail this test.

As organisations increasingly assume a strategic stance, so does the human resource function become more strategic in its orientation. Human resource strategy evaluation and control are, therefore, born of the imperative for strategic initiatives at all organisational levels to be successfully orchestrated and implemented to confer advantage on to enterprises. But individual organisational members are also subject to control (Gordon, 2021).

The human resource strategy forms the nexus between the people-organising function and the strategic management of the organisation, which Peng (2006) and Macmillan and Tampoe (2000), for example, conceptualise as the application of military principles to organisational or non-military value creating activities. The human resource combines the traditional activities of personnel management - such as acquisition, maintenance, and separation - and a philosophical or as Bratton and Gold (2017) put it, ideological orientation towards the members of an organisation.

Strategic management is a variant of management that according to Thompson *et al.* (2004) employs a combination of competitive moves and approaches to delight customers, triumphantly confront rivals, conduct operations, and reach organisational targets. Strategy enables pursuit of sustainable competitive advantage (Abdulwase *et al.*, 2020; Marcus, 2005). The convergence of human resource management and strategy is billed to facilitate this advantage in a unique way. This point is driven home by Prahalad and Hamel (1990, as cited by Dess *et al.*, 2005), in their assertion that in the information age, a firm's value is derived from knowledge, know-how, intellectual assets, and competencies. These are all resident in people rather than in things.

Successful strategic management is the interplay between the levels of strategy. The human resource strategy cascades downwards from, or aligns upwards to, corporate strategy, for multi-business entities, indirectly through the business strategy, or for single business concerns, directly from business strategy (Pearce & Robinson, 2011, 2003; Thompson *et al.*, 2004). Indeed, higher up the strategy hierarchy, the network strategy sits above the corporate strategy and links various corporate strategies especially for global firms (de Witt & Meyer, 2010).

And even higher is the enterprise level strategy that establishes the association between the organisation and society (Schendel & Hoffer, 1979). Strategists orchestrate corporate strategy to focus the organisation in a predetermined direction; and business strategy to set the tempo for competitiveness for the strategic business units or the major divisions of the organisation in their specific markets (Thompson *et al.*, 2004; Pearce & Robinson, 2011).

Higher level strategies are akin to abstractions or theory (Peng, 2006). According to Dubey and Ali (2011, as cited by Fuertes *et al.*, 2020), functional level strategy ‘is close to the definition of processes and actions, that is, it responds to how things must be done or how must be used and applied to the resources’. According to Agwu and Onwuegbuzie (2017), ‘the strategic goal of each function is to create a core competence that gives the organisation a competitive advantage’. Along with other functional strategies such as operations, marketing, research and development, accounting and finance, give effect to business strategy and ultimately corporate strategy. Thus, as Digman (2003) observes, the human resource strategy is a supporting strategy. But this supporting role has a flip side to it: Sanz-Valle *et al.* (1999) note that this appears to suggest a reactive role for human resource in that it is prompted by the corporate and business level moves. Integrative human resource management requires proactivity of human resource in the shaping of business strategy (Bratton & Gold, 2017).

From its military roots, strategy is about winning. Whether or not a strategy qualifies as a winner comes down to its implementation. It matters less that enterprise, network, corporate, or business strategy is elegant, strong, or powerful; it will amount to little where execution is either lacking or is weak.

Charan and Colvin (1999) and Holman (1999) both as cited by Macmillan and Tampoe (2000), find bad execution both widespread among firms and the cause for failure of strategic initiatives. Charan and Colvin (1999, as cited by Macmillan and Tampoe, 2000) actually reported as much as 70% in failed execution.

Macmillan and Tampoe (2000) argue that a weak strategy, seamlessly and flawlessly executed, could turn out better than an unimplemented or a poorly implemented strong strategy. Thus, to win, strategy has to be translated from strategy as theory of winning (Peng, 2006) to, according to Marcus (2005), moves that position an entity in a more desirable future position relative to its present position. The strength of the human resource strategy is that as a functional move, it is implementational, which underscores the attention it deserves from management at all levels.

Just as human resource strategy cascades from business strategy so do human resource strategy evaluation and human resource strategy control cascade from the overall strategy evaluation and control, presumably the final phase of the strategic management process. In practice, however, evaluation and control mechanisms, including strategy evaluation and control, run through all primary managerial and strategic processes. Digman (2003) argues that the rise and fall of management hinges on control and its efficacy. And since strategy is about ‘minor’ and ‘major’ impacts (Pearce & Robinson, 2011), determining the size and direction of the impacts of decisions and actions assumes greater significance. High impact initiatives, then, need to be identified.

As a variant of strategy evaluation and control, human resource strategy evaluation and control are a component of overall organisational control of which strategic control is also a component. Thus, human resource related strategy evaluation and control have implications for overall organisational success. Yet literature suggests human resource is perceived as not value-adding (Holbeche, 2009; Lawler III, 2015). Lawler III (2015) criticises human resource for being 'bureaucratic, dysfunctional, and out-of-touch with the reality of what businesses need to do in order to be successful'. According to Reilly (2008), many human resource management professionals perceive the function to be under threat. Human resource management must show evidence that it can deliver, as for example the function struggles to shake off the cost-centre tag (Yagneshnath & Shankarrao, 2019), which illustrates the gravity of its evaluative and control aspects.

Besides establishing the validity of a chosen strategy and its performativity, human resource strategy evaluation confers other benefits to organisations, which arise from the two above. First, the process provides crucial information that feeds further strategising. Secondly, it satisfies the urge for feedback, appraisal and reward. Finally, evaluation supports the development of the strategic management process, being its culmination. It closes the loop between formulation, implementation, and evaluation and control and thereby establishes the requisite nexus with performance. It is the culmination of the strategic management process.

In addition, it increases organisational capability by enhancement of an evaluative culture within organisations (Wayne, 2008). On the other hand, the necessity for human resource evaluation has been established in the literature. According to Fitz-Enz (1995 as cited by Peiseniece & Volkova, 2010), human resource management evaluation proffers the following benefits: establishes good economic sense; gives evidence for results; motivates and focuses

human resource staff to significant tasks; sets out cause-effect relationships; makes the case for further resources; and raises individual satisfaction and standing. These in the final analysis impact long-term performance. Thus, strategic evaluation is co-joined with performance, hence providing the rationale for investment in it. But for strategising entities to be able to harness the advantages of strategy evaluation, the evaluation systems need to have certain features. The School of Business at Bangladesh Open University (SoB-BOU, n.d.) suggests evaluation systems need to be economical and meaningful. They need to provide useful and timely information. They also need to be able to paint a true picture of events besides being elaborate and detailed. And they should be directed towards the right person thereby conferring ownership that in turn facilitates uptake.

Human resource strategy control is similarly a derivative of overall organisational control, which Bateman and Snell (2007) conceptualise as any process that directs the activities of individuals towards the achievement of organisational goals. For Anthony and Govindarajan (2004), management control systems are supervisory activities directed at people for the attainment of intended strategies. According to Hitt *et al.* (2005) organisational control guides the use of strategy, indicating results, noting any deviations from expectations and instituting corrections thereof. In Digman (2003)'s view, the rise and fall of management as a whole is predicated on the effectiveness of control.

Indeed, control appears to be the essence of management when defined in its oversight role and a resource-allocating economic activity (Obiefuna, 2014), as well as the fact that control is not only a distinct managerial activity but is implied in the other three managerial activities: planning, organizing, and leading. According to Dwivedi and Giri (2016), control theory sustains performance management.

Accordingly, it is the centrepiece of human resource management, strategic human resource management, and hence human resource strategy. In their framework for strategy implementation, Anthony and Govindarajan (2004) suggest a complex interplay between strategy and performance in which both management control and human resource management mediate strategy and performance. The reference, then, to individuals and people in the definitions of control systems strongly suggests the centrality of human resource management in organisational control generally and in strategic evaluation and control particularly.

Literature establishes three levels of organisational control: strategic; tactical (management); and operational (Robbins & Coutler, 2014; Kennedy, 2020). Tactical and operational controls are the more commonly researched and it is at this level that the myriad classification of control simply becomes mind-boggling. Management controls can be typified along the following dimensions: level of proactivity; behavioural; and outcome (Venkataraman & Saravathy, 2001 as cited Kennedy, 2020). Three control sub-types can be established on the basis of proactivity: Feedforward; Concurrent; and Feedback. Further along these subtypes, controls can be classified as financial and non-financial.

According to Droege (2019), management control systems are classifiable into two: Regulative Controls that involve Bureaucratic, Financial, and Quality controls; and Normative Controls that include Team, Norms as well as Organisational Cultural Norms. Hitt *et al.* (2005), however, place all organisational control in just two types: strategic or financial. Langfield-Smith (1997) appears to suggest that the distinction between strategic and management control is no longer tenable, particularly with the push for employee empowerment.

Strategic control keeps an eye on strategy, to avoid the incidence of veering of track. It tracks the progress of strategy execution, spotting problems, or potential problem, areas that indicate error in the strategy, and then adjusting as appropriate (Phillips, 2007). The need for strategic control arises from the changing context in which organisations function (Barnat, 2018). In Yabs (2010)'s view, strategy control positions an organisation such that it avoids strategy surprises, thereby taking on a futuristic rather than historical stance. Digman (2003) reasons that strategic control is a means to reassure those not close to the scene of action, to verify strategic impact of functional and operating actions, to ensure internal data flows, and thus serve as a means for validating and adjusting strategies.

Strategic control is broad in nature; literature breaks it down into Premise, Surveillance, premise, Implementation, and Special Alerts controls (DuBois, 2018; Yadav, 2011; Pearce & Robinson, 2011). Surveillance involves tracking the broader external environmental as well as internal circumstances that may impact strategy. Premise control tracks environmental and industry assumptions that undergird the entire strategy of the organisation. Implementation control evaluates if strategy is going as planned and achieving what it was meant to achieve.

And finally, special alerts control monitors sudden, unexpected events that could threaten the strategy and organisational well-being (Stehnei, *et al.*, 2017). That way, the strategist can rethink the strategy and formulate stand-by contingency plans to mitigate surprises. It is for this reason that control cannot wait to be done at the end of the strategy process as the linear model suggests. The control process has to be built into the entire strategic management process. In research, though, management control systems have received more attention than strategic control.

In spite of the theorised benefits of strategic evaluation and control, including its human resource aspects, it is not all roses. It is fraught with challenges that hinder its efficacy and question its own viability as a contributor to value creation considering its significant cost. To begin with Wright (2021) observes that strategy evaluation just gets by-passed; it is not remembered. Furthermore, strategy evaluation and control criteria are highly subjective (Hitt *et al.*, 2005), which challenges measurability. David (2013) presents a number of challenges to strategy evaluation and control. One is a dramatic increase in complexity and dynamism in the strategic context. Two, there is difficulty in predicting the future. Third a high rate of obsolescence of even the best plans. And four, the decreasing time spans for planning.

Within organisations, there also appears to be an inordinate emphasis on management and operational control at the expense of strategy evaluation and control. This is attributable in part to the short-termism that attends the pursuit of organisational performance today. At the level of human resource, evaluation is even more problematic given that accountability and measurements in human resource management is stubbornly difficult (Mello, 2011; Bernadin, 2007). Finally, control generally evokes negative connotations, particularly within academia where even the notion of management itself has been problematic.

Effective human resource strategy evaluation and control are information-dependent. Managers' knowledge of what is going on is information-based. Information implies processed data. That data is one that must have been organised and interpreted, formatted, filtered, analysed, and summarised (Gordon & Gordon, 2004). It also has to be meaningful and useful to people (Laudon & Laudon, 2008) in a given context (Oz, 2004). Hartley (1928) and Ursul (1971) both as cited by Burgin (2009) consider information to suggest eliminated uncertainty.

For Kolmogorov (1965) and Chaitin (1977), both as cited by Burgin (2009), information implies eliminated complexity. Information is necessary and impactful. This is regardless of whether it is conceptualised as a resource, an asset, or a product (Gordon & Gordon, 2004). Information sheds light on competitive insights, customer needs, and the regulatory context (Bovee & Thill, 2008).

But information's efficacy is conditional; certain features must be present. Bovee and Thill, (2008) allude to completeness of information as do Dwivedi and Giri (2016). Snell (1992) refers to complete knowledge. Information has to be real-time (Weihrich *et al.*, 2010), reliable, maintainable, reported, and useful (Agbanu *et al.*, 2016). According to Dwivedi and Giri (2016), accurate and timely information is a major enabler of evaluation and control. Dwivedi and Giri (2016) as well as Snell (1992) also refer to administrative information; but they do not define the concept. According to Bossyut *et al.* (2014), evaluation results require uptake and utilisation of information. But besides information and knowledge, managerial practical wisdom is imperative (Mahdavi, *et al.*, 2020).

As noted earlier, organisations are differentiated. Vertical differentiation gives rise to organisations as hierarchical systems (Zamani & Vicsek, 2017; Gordon & Gordon, 2004). Decision-making at various levels, thus, will require different types of information. This gives rise to the classification of information as operational, tactical, and strategic. Accordingly, information systems are hierarchically arranged as transactional processing, management support, decision support, and executive (O'Brien *et al.*, 2009). Strategic information, which is highly summarised and long-term in focus, supports the understanding by top executives of the environment, industry, and performance.

At this level, only minimum information is necessary (Kazmi, 2008). There is, therefore, need to beware of dangers of information glut (Stevens, 2021). To the extent that information is prerequisite for formation and control of strategy, it mediates the relationship between human resource strategy evaluation and human resource strategy control and performance.

Strategy evaluation and control falls within the realm of strategic decisions. These have a number of features. One is that they are top management-based (Ghosh, 2010). Top management decisions affect the entire organisation (Simmering, 2022). Like all corporate initiatives, the workability and efficacy of human resource strategy evaluation and control are contingent on the decisions of top managers, or at the minimum, management support. Hambrick and Mason (1984) assert: top executives matter. According to Ghosh (2010), one of the critical success factors (CSFs) for a winning strategy consists in the quality of top management.

Top management support should, in principle, not be problematic. Controlling, a basic sub-process of management, should come naturally to managerial work (Jones & George, 2006; Bateman & Snell, 1999). For Bateman and Snell (2007), lax top management comes first in the list of symptoms of an out-of-control organisation. Thus, premium ought to be placed on the development of future managers (Ghosh, 2010), a CSF and an human resource strategy of its own. The various conceptualisations of management have implications for the relationship between its layers. According to Obiefuna (2013), four such definitions exist. One, management is a resource. Two, management is a body of knowledge. Three, management is a process. And four, management is an economic act by which resources get to be allocated.

As a resource, management comprises a group of people who perform the oversight role in organisations (Kaehler &Grunde, 2019). In this study management is conceptualised as a resource although this evidently subsumes the other three conceptualisations given that managerial work is processual, requires some level of knowledge, skill and experience, and involves execution of resource-allocating activities. Obiefuna (2013) observes further that a distinction between management as a resource is established on the basis of vertical rank; hence the incidence of top management, middle management, and line management (Jones & George, 2006). Human resource specialists have rarely occupied senior management positions; often they are found in middle management level and operational roles.

This distinction guides the setting up of roles for the various levels of management, although all managers carry out planning, organizing, leading, and controlling activities, but in varying combinations (Obiefuna, 2013). According to Bateman and Snell (1999), top management exercises overall responsibility for the organisational effectiveness. Jones and George (2006) consider top management work as entailing setting up organisational goals, determining the interplay between units of the organisation, and monitoring the conduct of middle management.

Generally, top managers supervise middle managers who in turn oversee frontline managers. Significantly, therefore, top managers report to no one, are only responsible to the owners of the organisation and enjoy high discretion (Obiefuna, 2013). But top managers are highly dependent on the work of the other managers (ibid), which raises questions of the effectiveness of their contribution to organisational performance (Lee & Teece, 2013). Another pertinent question is the extent to which they depend on human resource specialists.

Top management influences the quest by human resource for a strategic seat. The management process is an interaction between levels of management in the course of organisational routines. Consequently, the relationship between top management and the other levels of management shows the level of mutual support. In many organisations, specialist human resource is either a middle level or first line function. This lays bare the pronounced hierarchical distance. Thus, for human resource activities to succeed, they require support from the top, where their presence is hardly felt.

A key role of top management exercises control over the strategic context (Lee and Teece (2013). To Baron and Kreps (1999), successful human resource management is contingent upon the involvement of executives since human resources constrain strategy, executives set the tone for employment relationships that affects expectations and attitudes of workers, and human resource policy implementation requires input of line management. In other words, human resource is organisation wide and only top management can take organisation wide decisions, including those of human resource strategy evaluation and human resource strategy control. Top management roles that make its support to other functions necessary include: direction setting; strategy evaluation and control; and involvement (Baron & Kreps, 1999).

Organisational effort, be it managerial or employee based, revolves around performance. The term connotes an accomplishment as well as bringing something to completion. It is both a result of activity and the activity itself. Performance is a process and its outcome. According to Hoffmann (1999, as cited by Ghalem *et al.*, 2016), performance describes an evaluated contribution to the achievement of organisational goals. Daft (2015, as cited Barnat, 2018) conceptualises performance as reaching organisational goals efficiently and effectively.

This concept is at the heart of organisational effort (Muteshi & Kariuki, 2020), and is contested (Jenatabadi, 2015), inconclusively. The quest for better performance has driven the development of management thought and practice. It kicked off with the onset of ‘Organisational Revolution’ and ‘Managerial Revolution’ (Boulding, 1980, as cited by Obiefuna, 2014). In other words, the bottom-line to all organisational effort is performance. Arguably, the legitimacy of major organisational variables rests on their relationship to performance. Strategy itself is relentless focus on sustainable organisational performance particularly in a context fraught with competition. Human resource systems and practices are similarly inclined.

And yet the term performance itself is fraught with definitional challenges, as are measures to show that organisations, groups, and individuals have achieved it. Some definitions appear to suggest that performance refers to outputs, outcomes, or results in relation to pre-set targets (Setiawan & Purba 2020; IGI Global, 2019). Some conceptualisations of performance appear to imply the process (behaviour) of generating output or results. According to Jones and George (2006), performance is efficiency and effectiveness in utilising resources in pursuit of goal attainment that is both the result and the behaviour.

Etzioni (1964, as cited by Ball and Halwachi, 1987) considers effectiveness and efficiency as the hallmarks of organisational performance. And according to Egler (2007), performance involves the production of valuable results through actions that integrate skills and knowledge. Since organisations exist to achieve something, all conceptions of performance are agreed that performance is not a fixed point, but rather a continuum along goal-based pre-set standards.

Corporate entities concern themselves with three performance goals or targets: financials; market share; and shareholder value. Financial measures are largely objective and, therefore, relatively ‘easier’ to determine (Mello, 2011); they tap into revenues and costs. Performance is, however, not always objectively measurable. For not-for-profits, and even for corporate, entities, subjective measures among them quality, employee satisfaction, and, with rising demand for ethical behaviour the world over, corporate social responsibility play a significant role. Thus, organisational effectiveness generally is viewed as a multidimensional construct and typically involves multiple criteria such as productivity and flexibility (Wehrich *et al.*, 2010).

Management pursues performance at the individual, group or unit, and organisation levels. According to Mathis and Jackson (2003), performance implies what an individual has done or not done and its key elements are quantity and quality of output, timeliness, presence at work, and cooperativeness. Organisational performance is the aggregation of individual and unit performance (Gibson *et al.*, 2006) based on key performance indicators (KPIs), which, are quantifiable measures derivative from strategic plan that serve as the basis for monitoring progress and assessing accomplishment of goals (Salgado *et al.*, 2020). Key Performance Indicators reflect performance (Ireta, 2012). In this study, performance is conceptualised as human resource results.

Human resource performance measurability is intractable; hence the intense debate. Mello (2011) asserts that human resource indicators are more difficult to establish. Wehrich *et al.* (2010) note the absence of the composite indices for human resource evaluation.

As the performance of organisations come under increasing scrutiny, so does the need for more accurate measures of performance becomes an imperative, particularly where, as in higher education institutions, costly initiatives as human resource strategy are involved. In higher education institutions, performance is immensely complex and demanding, performance-based goals and objectives cascade downwards from organisational purpose or mission. Similarly key results areas and KPIs are derivatives of goals and objectives. Jarrat *et al.* (1985, as cited by Ball and Halwachi, 1987) classify KPIs in Higher education institutions as internal, external, and operating.

Ball and Halwachi (1987) also detail Sizer (1979)'s benchmark for KPIs: relevance; verifiability; quantifiability; economic feasibility; and institutional acceptability. And their own objective areas of performance focus are the personal and intellectual development of students (Ball and Halwachi (1987). But they do not establish the human capital or resources component through which this development is brought about. In the conceptualisation of excellence in higher education, Brusoni (2014) identified excellence in management as the very first of the approaches to excellence and to that extent recognizes the role of organisational capability in the three other approaches to excellence, namely research, teaching, and student performance.

Andrews *et al.* (1998) are more inclusive in their conceptualisation performance in higher education. Their indicators are based on broad context, staff, finance, and outcomes (Andrews *et al.*, 1998). These analyses downplay human resource indicators, which are enablers of human resource strategy evaluation and control.

The argument applies to Kenya's higher education system that's engaged in teaching, research, and service (CUE, 2016). According to the World Bank (2019), the indicators of performance in the Kenyan higher cover three areas: coverage and equity; quality and relevance of university graduates; and research and technology transfer output. It is difficult to locate human resource indicators in this classification but they are implied. As the higher education environment changes, and particularly the incidence of globalisation, the conceptualisation of performance impact will assume greater complexity, possibly giving rise to the need for more performance indicators. Strategic plans of universities in Kenya do not bring out human resource-related performance indices.

The primacy of evaluation and control in the determination of levels of performance reached is well established and continues to take centre stage. Bernadin (2007) observes that measurement and accountability are key components of organisational effectiveness and competitive advantage. For strategic human resource management researchers, performance indicators revolve around: human resource outcomes; operational outcomes; and financial outcomes (IGI Global, 2019). In the context of higher education, operational outcomes may include student outcomes, research and service, including the Triple Helix concerns.

1.2 Statement of the Problem

Higher education institutions continue to adopt the strategy process through the medium of strategic planning to respond to the growing complexity and fast-paced change in their contexts. As labour-intensive entities, strategy at the human resource level assumes greater significance. Yet the contribution of the human resource management function is itself contested mainly for the intractability of providing quantifiable evidence for that contribution (Mello, 2011). Since strategy at all levels is consequential, the need to validate the human

resource strategy in terms of its own viability and suitability, tracking its implementability, and assessing its contribution to performance through strategy evaluation and control, which then legitimises the human resource function, is imperative. In theory, the role of strategy evaluation and control is well established and sound (Pearce & Robinson, 2011); but strategy evaluation and control is less researched (Elbanna, 2016). Most studies in the field of evaluation and control have addressed management and operational control systems and little strategy evaluation and control (Langfiedl-Smith, 1997; Snell, 1992). And if strategy evaluation and control is underresearched, the situation is direr for human resource evaluation and control. For instance, while measurement is foundational to strategy evaluation and control, human resource management initiatives hardly get subjected to objective assessment. Human resource assessments place emphasis on outcomes or intermediaries rather than on business objectives, which has undermined the function's credibility with top management and its quest for a seat at the strategic table. Bibliographic analyses of recent research works around this field reveal a limited reference to strategy evaluation and control generally and none at all to human resource strategy and human resource strategy control specifically. The notion that strategy evaluation's dimensions of Consistency, Consonance, Advantage, and Feasibility and strategy control's dimensions of Premise, Implementation, Surveillance and Special Alerts (DuBois, 2018; Yadav, 2011) can apply to human resource strategy and thereby affect performance positively has scarcely been investigated by strategic management and human resource management scholars in the context of higher education. Without a firm grounding of the two constructs in research and practice, justification of strategy initiatives, such as strategic planning that has become common in the higher education sector, proves problematic. This study, therefore, aims to narrow this gap in the literature by domesticating business strategy evaluation and control dimensions to human resource strategy evaluation and control and examining their relationship to the performance of the human resource

strategy in light of the mediation of information characteristics and the moderation top management support in the context of higher education in Kenya.

1.3 Objectives of the Study

This study was guided by one general objective and six specific objectives.

1.3.1 General Objective of the Study

The general objective of the study was twofold: to establish the relevance of the business strategy evaluation and control dimensions to human resources strategy evaluation and control; and to establish the direct relationship between human resource strategy evaluation and control and performance as well as indirect relationship as mediated by information characteristics and moderated by top management support.

1.3.2 Specific Objectives of the Study

The specific objectives of the study were:

- (i) To determine the relationship between utilisation of human resources strategy evaluation and performance of human resource strategy in universities in Kenya.
- (ii) To establish the relationship between utilisation human resources strategy control and performance of human resource strategy in universities in Kenya.
- (iii) To determine the mediating effect of information characteristics on the relationship between utilisation human resource strategy evaluation and performance in of human resource strategy universities in Kenya.

- (iv) To ascertain the mediating effect of information characteristics on the relationship between utilisation human resource strategy control and performance of human resource strategy in universities in Kenya.
- (v) To examine the moderating role of top management support on the relationship between utilisation human resources strategy evaluation and performance of human resource strategy in universities in Kenya.
- (vi) To demonstrate the moderating role of top management support on the relationship between the types of human resources strategy control and performance in of human resource strategy universities in Kenya.

1.4 Research Hypotheses of the Study

This study tested the following hypotheses:

- H₀₁: There is no significant relationship between utilisation of human resources strategy evaluation and performance of human resource strategy in universities in Kenya.
- H₀₂: There is no significant relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya.
- H₀₃: Information characteristics have no significant mediation effect on the relationship between utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya.

H₀₄: Information characteristics have no significant mediation effect on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya.

H₀₅: Top management support has no significant moderating effect on the relationship between utilisation of human resources strategic evaluation and performance in of human resource strategy universities in Kenya.

H₀₆: Top management support has no significant moderating effect on the relationship between utilisation of human resources strategic control and performance of human resource strategy in universities in Kenya.

1.5 Justification of the Study

As organisational environment shifts rapidly, two things happen: the need to formulate and implement sound strategies to cope with change; and systems become rapidly obsolete and hence require revision or replacement. This is applicable to the human resource strategy as well. Both the billing of human resource as a unique source of competitive advantage and its high cost, taking as much as three-quarters of organisational budgets, requires evidence of performativity. This makes effective strategic evaluation and control at the human resource level imperative. But returns to human resource initiatives unapparent (Walsh *et al.* 2010) are contested. Though human resource is key to success or failure of organisations (Baron & Kreps, 1999), measurability of human resource systems, though crucial (Bernadin, 2007), is inadequate; human resource initiatives rarely analysed (Mello, 2011).

Thus, strategy evaluation and control needs to be strengthened. Strategy evaluation and control is well established in the literature; the idea of human resource strategy evaluation and control is hardly researched. Thus, strategy evaluation and control for human resource strategy is not only key in establishing accountability of human resource management but also crucial in firming up the function's strategic position within the organisation.

Human resource management is organisation wide; strengthening its strategy evaluation and control means enhanced organisational capability to formulate and execute strategy. As universities in Kenya have been earnest in their strategic planning, since 2003, they provide an ideal setting for testing the working of the human resource strategy evaluation and control.

1.6 Significance of the Study

Higher education institutions are labour-intensive. Thus, human resource both as individuals and functional area are strategic. The organisational capability of human resource units at higher education institutions attracts scrutiny. To that end the human resource strategy is a key enabler; and its performance draws attention. This study is useful to top human resource specialists at higher education institutions. Findings will enable them understand their role in the strategy process as well develop conceptual and practical skills in the evaluation and control of strategy both at the functional and business levels. This will raise their profile.

The study is also useful to the human resource management profession. This will raise their profiles at the institutions for their conceptual fluency in the strategy discourse. And prove of the performance of the human resource strategy will raise the profile of the human resource function.

The human resource profession will benefit from this study by harnessing the information to develop human resource performance metrics for which it continues to struggle.

1.7 Scope of the Study

The study was carried out in Kenya and covered 34 public and private universities across a number of counties. The researcher collected data from November 2019 to March 2020. The study targeted the office of registrar (administration) and not the entire top management because of their oversight over human resource units. Finally, the study covered only evaluation and control as aspects of the human resource strategy and not the content of those strategies.

1.8 Limitations and Delimitations of the Study

The main limitation of the study was its single person respondent bias as only one respondent was targeted from each of the sample universities. This is a threat to the generalisability of results; evaluation and control are organisationwide and studies thereof have to be conceptualised as such. In addition to this limitation, the researcher could not establish the human resource qualifications of the respondents. Indeed human resource expertise was not a requirement for sampled personal specification indicated for advertised position of Registrar (Administration). Another limitation was lack of specific human resource plans, which the investigator merely inferred from the general strategic plans of some of the surveyed institutions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter dealt with the background information on which the researcher built the current study. It presents the theoretical literature as well as the empirical literature; the former anchors the study's concepts and variables, the latter outlines previous studies carried out in this area and the extant gaps thereof (Kothari, 2004). The two types of literature built up to the study's conceptual framework as well as the subsequent operationalisation of the concepts. This literature ultimately guided the interpretation of results and the accompanying explanations (Cooper & Schindler, 2008).

2.2 Theoretical Review

This study was based on a number of theories that enabled identification and definition of variables and also to provide explanations on how the variables relate to one another (Sekaran & Bougie, 2013). In all the study considered five theories. The strategic management model established the two independent variables, namely human resource strategy evaluation and human resource strategy control. The Data, Information, Knowledge, and Wisdom (DIKW) Model or Pyramid anchored information characteristics while Role Theory buttressed top management support. Performance, the independent variable, rested on the Systems Approach to organisational effectiveness.

Higher education institutions are institutions. But they are also organisations. This duality has implications for performance. Thus, the study drew from Institutional Theory to explain their role in society. Accordingly, performance goes beyond the traditional conceptualisation.

2.2.1 Strategic Management Model

Human resource strategy evaluation and human strategy resource control constitute a logical component of the overall strategic evaluation and control phase of the strategic management process, based on the notion of cascading downwards and aligning upwards. Strategic management is a style of management that is unique owing to its utilisation of strategy, from Greek *strategia* or *strategos*, meaning *generalship* (Grant, 2010). On the basis of its military roots in ancient Greece, the object of strategy is winning; or to give it a sense of urgency, avoiding defeat, with all consequences that came with it, as Xenophon, a Greek military general, recounts in a contest with an enemy to gain an advantageous higher ground (Adair, 2010).

Apparently in Athens, to outperform the enemy on the battlefield entailed *agein*, to lead, *stratos*, the army (Macmillan & Tampoe, 2000). In ancient times, defeat at war meant not only loss of lives and material, but tattered image and even possible loss of independence for a political entity. Evidently, both the *stratos* and its leader, the *strategos*, must have been alive to the implications of defeat and, thus, firmly transfixed themselves on winning. The extent to which this thinking resonates within non-military organisations that strive to manage strategically remains unclear even if the business as war metaphor is ubiquitous (Macmillan & Tampoe, 2000).

There are myriad definitions of strategic management but they rarely are straightforward (Nickols, 2016). Instead, scholars conceptualise strategic management using some characteristics among them time-scale, magnitude of undertakings, and commitment among others (Grant, 2010; Haberberg & Rieple, 2008).

According to Hunger and Wheelen (2011), strategic management comprises a number of managerial making choices among alternatives and taking actions that affect the long-term well-being of an organisation. In Certo and Peter (1993)'s view, strategic management refers to an on-going, repetitive process of aligning a company to its environment. Haberberg and Rieple (2008) do not provide a definition at all in a book whose title is Strategic Management!

Although strategic management theory and practice emerged in the late 1970s to early 1980s out of the presumed failure of strategic planning, strategy ideas were introduced into business after World War II (IIEP, 2010), probably by military personnel who took up positions in management (Beach & Lindahl, 2015). The new management paradigm did not replace strategic planning per se but rather combined planning with implementation (Bryson, 2010). Strategic planning, also referred to as strategy formulation (Greer, 2001), entails the codification, or programming, of corporate and business strategy from which the human resource strategy emanates.

Scholars have proposed some models practitioners can adopt in the process of strategic planning. Generally, however, the process proceeds as follows: derivation of philosophy and mission statement; environmental scanning; analysis of strengths, weaknesses, opportunities, and threats; formulation of strategic objectives; derivation of alternative strategies; and evaluation and selection of strategies (Greer, 2001). Strategic planning reached its highest point in the 1970s and then began to decline.

A number of criticisms have been levelled against strategic planning. Mintzberg (1994) has spearheaded the attack, charging that: strategic planning is based on flaws of logic such as predetermination and formalisation, thereby killing intuition and creativity; it limits freedom of employees; and it tends to stifle change by creating rigidity. According to Barrows (2009) strategic planning fails due to: the tendency by managers to skip rigorous analysis; false belief that strategy can be built in a day; the failure to link planning with implementation; and avoidance of review meetings by managers. Strategic planning was also challenged for its non-participatory nature, especially in the early days, where separate planning departments existed so that thinkers and executioners are separated. Strategic management ostensibly cures these shortfalls by strengthening the implementation component, and even more importantly by institutionalising strategic thinking throughout the organisation.

Although strategic management has quickly established itself both as a management tool and as an academic discipline, in practice, strategic planning is still popular. Arguably, strategic management has not totally replaced strategic planning but has, instead, adopted and it. Indeed, strategic planning remains the gold standard of the strategy process, probably due to the tangible nature, intellectual appeal, and elegance of its output, the formal strategic plan.

Incidentally universities in Kenya embraced strategic planning, long after Mintzberg (1994) suggested the 'Rise and Fall of Strategic Planning', before quickly revising the argument to 'Fall and Rise of Strategic Planning' (Mintzberg, 1994). In the mid-1990s, public universities in Kenya still engaged in forward budget planning (Wandiga, 1997) as directed by the ministry of education. Strategic planning was embraced after significant political change in the year 2003 upon which the higher education environment became more liberal.

The purpose of strategic management is to strengthen the idea behind strategic planning; the extent, however, to which Higher education institutions in Kenya go beyond the strategic planning, now that they strategise in light of the criticisms of Mintzberg and others, is not clear.

Strategic management is processual. For some authors it involves four steps: environmental analysis; formulating the strategy; implementation of the strategy; and strategic evaluation and control (Wheelen & Hunger, 2011). Other writers, for example Certo and Peter (1993), Kepner and Tregoe (2008), and Bratton and Gold (2017) adopt a five-step approach of the general form: analysis; of the establishing the direction organisational; formulation of strategy; implementation; and evaluation and control. In both approaches strategy evaluation and control is the final step, although uniformity is lacking even within the same model. For example, Kepner and Tregoe (2008) propose the following five-phase model: strategic intelligence gathering; strategy formulation; planning of the strategy implementation; implementation; and strategy monitoring and updating.

This model lays more emphasis on implementation, splitting the phase into two parts - its implementation planning part and its implementation proper – and in a sense addresses the challenges of the strategy process in general, failure of implementation. For Jones and Hill (2013), strategic management is three-fold: analysis; formulation of strategy; and implementation of strategy. Thus, in Jones and Hill (2013), strategy evaluation and control is part of implementation. David (2013)'s strategic management model (as cited by Persaud *et al.* (2016) is three-phase: strategy formulation; strategy implementation; and strategy evaluation.

The strategic management process or structure assumes a linear, rational approach to the strategy process, which is hardly the case, for as Beach and Lindahl (2015) observe, the strategy process is a back and forth, folding over itself. Thus, strategy evaluation and control is as important to the analysis, formulation, and implementation as the first three phases are to strategy performance and its assessment. This study adopts the four-phase process that combines setting direction and formulation. Additionally, strategy evaluation and control, though used in tandem, are treated as distinct owing to their broad treatment in the literature. Again, available literature indicates a preponderance of management control work compared to strategy evaluation.

Thus, the strategic management process model, be it three-, four-, or five-phased, established the independent variables in this study: human resource evaluation and human resource evaluation control as cascaded from strategy evaluation and control. All levels of strategy formulated require evaluation for viability and tracking for performativity. Therefore, the first three phases are just as subject to evaluation and control as is the final step itself.

Strategy evaluation and control are used in tandem. Some authors, for example Certo and Peter (1993), and Pearce and Robinson (2011) even use one of the terms, strategic control, to connote both processes. Evaluation and control are, however, conceptually distinct, and this research work treats them as such. The combined process of strategy evaluation and control is a four-step as follows: determining desired levels of performance; assessing actual performance; identifying gaps between expected and realised performance; and instituting action to close the gap (Pearce & Robinson, 2011). Wheelen and Hunger (2011), though, make theirs a five-step process by adding 'determination of what to measure' as the first step, which makes the process clearer.

The strategy process is also hierarchical: corporate level strategy; business level strategy; and functional level strategy. Human resource strategy is a functional, defined as plans and programs to address and solve fundamental strategic issues related to human resource management (Schuler 1987 as cited by Greer, 2001). This hierarchy necessitates fit (Grant, 2010), both within the organisational strategy levels and with the external environment. Chenevert and Trembley (2009 as cited by He, 2017) outline a number of fits (also called match) that warrant consideration throughout the entire strategy process, including evaluation and control: environmental match; longitudinal match; international match; internal match; and internal activity match. Similarly, organisational strategy evaluation and controls are hierarchically arranged so that human resource strategy evaluation and human resource strategy control cascade and align accordingly. This same argument informs the flow of this discussion, hence sections 2.2.1.1 and 2.2.1.2 below.

2.2.1.1 Human Resource Strategy Evaluation

Generally, to evaluate is to establish the worth, value, or contribution of some phenomenon. According to the Canadian Evaluation Society (2019), evaluation refers to ‘the systematic assessment of the design, implementation, or results of an initiative for the purposes of learning or decision-making’. Strategy evaluation entails taking measurement in some way or other. This underscores the need for effective indicators and explains the race towards development of metrics in human resource management.

Identification of evaluation criteria is useful in the derivation of variables and parameter this study’s research instrument. Two types of evaluation: assessment of alternatives for strategic choice; establishing suitability of an existing strategy (Digman, 2003), thereby throwing light on the efficiency and effectiveness of the strategic plans.

Yadav (2011) also sees two roles of evaluation functioning at two levels: the strategic level questions consistency; and the operational level tracks implement ability. This study assumes an existing human resource strategy presumably anchored on the existing strategic plans at universities.

According to Rumelt (1993, as cited by Ghosh, 2010) and (David 2013), strategy evaluation is based on four principles as follows: Consistency; Consonance; Advantage; and Feasibility. Consistency looks out for agreement among goals and policies (emphasising goal congruence); consonance requires focus on sets of trends or individual trends; advantage questions the capacity of strategy to cause and/or sustain competitive advantage via resources, skill, and position; feasibility concerns with appropriateness of strategy vis-à-vis available resources and assurance that strategy will not cause more unsolvable problems (Rumelt, 1993, as cited by Ghosh, 2010). David (2013) notes consonance and advantage are based on external circumstances; consistency and feasibility on internal dynamics.

According to Oxford Reference (2020), configuration stresses “(HR) internal fit, development of coherent bundles of human resource practices that reinforce one another; involving human resource management’s key activities of Acquisition, maintenance, and separation”. An appropriate configuration of human resource management is also suggested that involves fit with the business strategy where human resource can be: operationally reactive; operationally proactive; strategically reactive; and strategically proactive (Ali *et al.*, 2012). Only strategically proactive human resource establishes internal and external fit, thereby creating viable strategic substitutes.

For Tilles (1963, as cited by Ghosh, 2010) there are six evaluation indicators as follows: internal consistency; external consistency; resource considerations; level of risk strategists will tolerate; soundness of the time horizon; and the workability of strategy. While Rumelt (1993, as cited by David 2013) focuses on internal consistency and assigns the external dynamic to consonance, Tilles (1963 as cited by Ghosh, 2010) splits consistency into internal and external, giving it more clarity. For Digman (2003), objective strategy evaluation criteria cover three items: good consistency; strategy content; and implementation. But Digman (2003)'s use of the term objective here confuses since these criteria involve qualitative statements rather than the traditional objective measures that are quantitative in nature.

Good consistency requires that strategy is aligned to the mission as well as other goals and objectives within the organisation. Digman (2003) recommends six qualitative statements for strategy content and seven for implementation in questioning the strategy. The present study seeks to link these criteria to the human resource strategy. To operationalise evaluation, Certo and Peter (1993) recommend that strategists ask critical questions around the qualitative evaluation indicators. But quantitative indicators of performance among them return on investment, return on equity, earnings per share, liquidity measures (Certo & Peter, 1993) are also considered. These are, however, focused on short, annual targets (David, 2013).

The challenge of the human resource management function has been to establish quantitative measures of not only the human assets (Mello, 2011) but also the high impact programmes among them recruitment, selection, and induction; training and development; reward; assessment, discipline, and control; and employee relations and equal opportunity provisions (Pearce & Robinson, 2011; Ghosh 2010). Assessment at the higher education institutions is more inclined to qualitative than to quantitative measurements.

Apart from the qualitative and quantitative indicators, there are other considerations of strategy evaluation: frequency of the exercise; methods to be deployed; expertise of evaluators; ownership and uptake of evaluation results. Management practices begin with objectives; it applies to evaluation as well. According Maunder *et al.* (2014), among the objectives of evaluation are: to determine if strategy is working as intended; to determine if the strategy is meeting stated goals and objectives; to measure the cost of efforts in relation to benefits; and to monitor progress in strategy implementation and make improvements where needed.

2.2.1.2 Human Resource Strategy Control

The need for controls arises from the fact that management, especially the executive, is not always near the action and thus requires some assurance that what is supposed to take place is actually taking place in the prescribed way (Digman, 2003). But control is not just about management; other stakeholders are also concerned. Thus, two ways of control: External that involves societal and market controls; and Internal constituting the system of authority, Bureaucratic control, Cultural control, Reward systems, Output control (Haberberg & Rieple, 2008).

The concept of human resource strategy control is not definitive. This study infers it from the overall strategic control. In this study the researcher makes an attempt to apply the principles of strategy control to human resource strategy since this is a variant of overall strategy. Strategic control entails efforts of management to keep an eye on strategy execution, sight problems or alterations in the basic premises and adjust as need be (Pearce & Robinson, 2011).

Strategic control sits at the apex of the organisational control hierarchy, high above management (tactical) control and operational control (Kinicki & Williams, 2008). According to Hitt *et al.* (2005), strategic controls are subjective in nature. Management controls are implementation, focuses mainly on strategy execution (Anthony & Govindarajan, 2004). Operational control provides the data for monitoring performance. Management and operational controls are internally focused and to that extent support the internal perspective of strategy control and are mutually reinforcing with each other.

Both management control systems and operational control are relevant to human resource strategy as management control systems emphasise a relationship between managers and organisational members while the focus of operational control, the organisational tasks, are performed by individuals. According to Langfield- Smith (1997), the distinction between strategic control and management control systems is blurring. And Digman (2003), who has clearly distinguished between evaluation and control, observes that questions of strategy control revolve around whether or not strategy execution proceeds as envisioned; and whether or not strategy is yielding results.

Other authors, for example Pearce and Robinson (2003; 2011) and David (2013), although highlighting the two questions, have nevertheless combined the two constructs or even used them interchangeably! According to Jones and Hill (2013), strategy control falls into four categories: corporate; divisional; functional; and individual; this conceptualisation strengthens this study's own conceptualisation of human resource strategy control since human resource strategy is functional level. Theoretical literature establishes four types of strategy control: premise control; surveillance control; and special alert control; and implementation control (Pearce & Robinson, 2011).

In premise control, management attempts to systematically and continuously check to establish the extent to which the basic assumptions of strategizing still stand (Murgan, 2016). The focus is on both the macro and industry environments. The strategy foundational ideas will usually have been established in the analysis phase of the strategy process (Kepner & Tregoe, 2008). Traditionally, corporate planning staff carried out Premise control by testing, on a continuous basis, the key basic strategy ideas for their competitive soundness, usually through the process of environmental scanning.

According to (Pearce & Robinson, 2011), strategic surveillance constitutes in attempts by management to internally and externally monitor a wide array of events for their likelihood to impact the course of its strategy over time. It is a more general form of control, enveloping, premise, special alert, and implementation controls. This strategy control type employs information scanning systems, thus human resource information system is relevant here (Pearce & Robinson, 2011). This breadth of scope is significant for this study: it is connotative of the implications of strategy control to all aspects of the organisation, and that includes human resource management and human resource strategy which are internal subsystems.

The fast-paced change in the strategic context subjects organisations to the incidence of sudden, unexpected events. A terror attack, for example, could clear a company's workforce. In the course of strategizing, management will need to provide for actions to completely, and often very quickly, reconsider a firm's strategy in response to or anticipation of such events; a kind of control known as special alert (Yadav, 2011; Pearce & Robinson, 2011).

Based on the maxim: hope for the best, prepare for the worst, special alerts control enables the organisations to manage crisis as follows: signal detection; preparation; damage limitation; recovery and organisational learning (Yadav, 2011). Thus, special alerts control systems are imperative, among them signal detection mechanism and formulation of contingency plans. Responsibility for unforeseen circumstances is then assigned to crisis management teams. Again, the extent to which human resource is involved depends on its position within the organisation to contribute to or drive strategy; and this study is unaware of any attempts made at investigating the control of strategy on the basis of special alert from the angle of human resource strategy .

The strength and/or weakness of a strategy will hardly be known until strategic action has been taken, that is, strategy execution or implementation. Implementation is riddled with uncertainty, as issues will emerge in the progress of strategic plans. Management will be required to have put systems in place to check whether the overall strategy has to be changed as results from the incremental implementation actions of the overall strategy emerge. This is implementation control and associated with specific strategic thrusts or projects and pre-established milestones (Pearce & Robinson, 2011).

The strategic plans, programmes, and projects that result from implementation of the strategy are kept track for their efficacy in moving the organisation towards its pre-determined vision. For the purposes of the present study, the specific human resources plans, systems, policies and practices are of particular interest. As discussed elsewhere in this study, the entire strategy implementation project relies considerably on the human resources strategy.

Thus, questions of the strategic partnership of human resources with the line management, peer departments, and top management are poignant. The success of effective control hinges some features among them the following: minimum amount of information; focus on only meaningful activities and results; timely; focus on both long and short-term; pinpointing the exceptions; and the rewarding of meeting or exceeding standards and instead of focussing on the punishment of shortfalls (Wheelen & Hunger, 2011).

2.2.2 Data, Information, Knowledge, and Wisdom Model

One of the variables in this study, information characteristics, has basis in the data, information, knowledge, and wisdom (DIKW) model or pyramid. The DIKW pyramid illustrates the relationship between data, information, knowledge and wisdom, which are vital in information use for decision-making. At the base of the pyramid is data, which Lucey (1997) refers to collection of facts and figures and is cost-incurring. Data is foundational to evaluation and control. O'Brien *et al.* (2009) refer to feedback, a key control mechanism, as data on how a system has performed; and that control is monitoring and evaluation of feedback.

Information refers to processed data (Lucey, 1997) and is meaningful within context (Oz, 2004). Knowledge comprises information, intelligence, and expertise (Ireland *et al.*, 2009) and is born of experience and learning. Wisdom constitutes the application of knowledge. A link is, therefore, theoretically set up between data, information, and knowledge; the information hierarchy at the apex of which sits wisdom.

Strategy evaluation and control as well as human resource strategy evaluation and human resource strategy control are generally not only information-dependent but can be considered to be information systems in their own right, consisting of performance data and activity reports (Wheelen & Hunger, 2011). Two control types, feedback and feedforward, suggest presence of information and its communication. The role of information in decision-making needs no emphasis. Information, which is implied meaningful data within context (Oz, 2004) can be considered a resource, an asset, and/or a product (Gordon & Gordon, 2004).

For Pearce and Robinson (2011) discuss information power as a lever of leadership influence. Just as it is power within organisations so is information power in interorganisational relations, the source of increasing concern for information-related security. The basis of all strategizing, including strategy evaluation and control, is sound data processed into information; and, Opoku (2015), argues, well-informed members of society are capable of superior performance.

According to Republic of Kenya (RoK) (2007), extensive use of information was made in envisioning process for Kenya Vision 2030. Data in the form of facts and figures reflect organisational processes and are evidence that what is going on is actually going on. Strategic choice is information-dependent as are feedback and feedforward mechanisms. Managers use processed data to create knowledge about cause-effect mechanisms at work in organisations (Snell, 1992) thereby increasing their strategic flexibility relative to competitors (Ireland *et al.*, 2009). According to Lucey (1997), relevant information increases knowledge, reduces uncertainty, and has utility for intended purposes. Blanchard and Thacker (2010) classify knowledge as strategic, procedural, and declarative.

In a seminal study on control theory and strategic human resource management, Snell (1992) avers that administrative information crystallises performance indicators and increases the knowledge of managers about the causality between performance variables. Digman's (2003) perspective is that the flow of external and internal data is critical and strategists should monitor both weak and strong environmental signals. For Schreyögg and Steinmann (1987), organisational control is essentially data acquisition. Information as input in value creation (Bovee & Thill, 2008) establishes the rationale for environmental scanning, monitoring and gathering data on situational factors, as almost always the first step in strategy development. And Certo and Peter (1993) dramatically assert: information is the lifeblood of strategic control! The materiality of information is, thus, affirmed.

The efficacy of information for evaluation and control, though, hinges on certain conditions. Lucey (1997) outlines the qualities of good information as: relevance; accuracy; completeness; credibility of source; communication; timing; and detail. Among the features include pertinence and focus on points of interest (Bovee & Thill, 2008; Certo & Peter, 1993); validity, reliability, timeliness, and amenability to transformation to intelligence (Certo & Peter, 1993); completeness, but neither too little nor too much as to overload (Bovee & Thill, 2008; Kazmi, 2008); availability (Certo & Peter, 1993); and non-conflicting (Gordon & Gordon, 2004).

Of particular interest for this inquiry is level of detail of information. This depends on the level of management. Information is, therefore, classified as strategic, tactical, and operational for executive management, middle management, and first level management use respectively (Gordon & Gordon, 2004). Thus, like knowledge, information exists in hierarchies.

Managers at all levels must be able to monitor whether an action is having the desired effect, and take corrective action. Top management has to be keen to establish appropriate strategic control points. Thus, information must be managed. According to Todorova (n.d.) managers need to consider a number of foundational questions concerning information and its deployment. One, information affects companies differently; two, information itself calls for effective coordination and control mechanism; three, the utilisation of information to create strategies requires organisational education; four, well-informed decision making on building or buying appropriate technologies; and an effectiveness balance between management and information technology management.

To produce strategic evaluation and control outcomes, hierarchical information systems interact with organisation structure, incentives, and value systems and norms (Certo & Peter, 1993). The information systems are established hierarchical by the type of information they supply to the levels of management to aid decision making. The arrangement follows the Data, Information, Knowledge, and Wisdom model (Intezari & Pauleen, 2016; Baskarada & Koronios, 2013). Laudon and Laudon (2008) present six systems, namely, Transaction Processing, Office Automation; Knowledge Work and Office, Management Information, Decision Support, and Executive Support.

But they collapse them into three major systems: Executive Information Systems; Management Information Systems; and Transactional Processing Systems. O'Brien *et al.* (2009)'s classification is twofold: Operating Support systems (comprising transaction processing systems, process control systems, and Enterprise collaboration systems); and Management support systems (comprising management information systems, design support systems, and executive information systems).

To correspond with levels of management, this study adopts Laudon and Laudon (2008)'s three classes of systems to correspond to strategic, management, and operational informational requirements represented by the Data, Information, Knowledge, and Wisdom model alternately referred to as information hierarchy (Baskarada & Koronios, 2013). Information uptake use also affects human resource strategy evaluation and human resource strategy control. The question of technology use is pertinent. Zuboff (1988, as cited by Torrington *et al.* (2008), ponder whether information technology is deployed for administrative or analytical tasks and whether the tendency is to automate or informate. To informate is to supply new forms of information that requires new ways of thinking. Automating alone restricts range of human resource information use (Torrington *et al.* (2008), yet in the information age, pace of technological change accelerates ability to access and utilise information, which then increases hyper-competition, for example the internet (Ireland *et al.*, 2009).

2.2.3 Role Theory

In this study, organisational role theory anchored top management support, the hypothesised moderator of the relationship between human resource strategy evaluation, human resource strategy control, and performance of the human resource strategy. The theory concerns situated behaviour patterns (Biddle, 2018). That means it explains expected patterns of behaviour of persons within given situations in society. The expectations are held by both the individual as well as others. The main postulate of role theory is that the roles individuals hold provide contexts (situations) that shape their behavior. Behaviour, the potential and capacity for all type of action (Kagan *et al.*, 2020), has implications for performance. Managerial roles within organisations provide contexts and shape the behaviour of managers and employees.

At the heart of role theory is the concept of role. The assumption is that systems get organised through roles. According to Bailey and Yost (2019), roles are organised behavioural patterns and expectations that attend a given position whether hierarchical, functional, or social or that are concomitant with a specific situation. Campbell (1999, echoing Sarbin 1954, Turner 1979, and Allen and van de Vliert 1984) has summarised conceptualisations of role by various theorists: as ‘a patterned sequence of learned actions or deeds performed by a person in an interaction situation’; role as ‘a comprehensive pattern for behavior and attitude’; and as ‘behavior referring to normative expectations associated with a position in a social system’.

According to Colman and Han (2005), a role is the relationships of an individual within a particular social context. Role expectation or definition sets off questions of duties, responsibilities, and authority. But roles are hardly straight jackets in which individuals fit. This is so particularly for knowledge workers. Roles get animated by enactors who require different levels of autonomy and capability players (Colman & Han, 2005). Top management usually has more of both these qualities. While roles influence behaviour, role-players in turn influence the roles they inhabit. This may give rise to role conflict and even role strain. Consequently, roles evolve and change (Campbell, 1999). This argument has implications for managerial behaviour.

Role theory is rooted in social role theory, a broader theory of society that first emerged in the social sciences. The concern of ORT relates to the manner individuals accept and enact diverse roles in task-oriented and hierarchical systems (Biddle, 1986, and Madsen, 2002, as cited by Parker and Wickham, 2005). Gross, Kahn, and their colleagues, and Everett Hughes's papers that discussed occupational roles (Biddle, 2018) first introduced the theory to management. Henry Mintzberg has popularised role theory in management (Tawk, 2021).

Managerial roles theorising has basis in organisational role theory. Management has emerged as key component of organisational life. According to Obiefuna (2014), Necker (1981), Drucker (1979), Johnson and Page (1975), Breach (1973), and Fayol (1959) conceptualise management as a resource, a body of knowledge, a process, and an economic activity respectively. As a resource, management comprises a group of individuals responsible for the functioning of the organisation. A distinction is made among these individuals on the basis of vertical rank: top management; middle management; and line management or supervisors.

Effective and efficient realisation of value is management's imperative and managerial interactions are vital. In the organisational context, performance arises from the interplay among role performances (statuses), which create social identities, among them those of top managers. Mintzberg (1973, as cited by Wehrich *et al.* 2010 and Boddy, 2008)'s managerial roles approach provides a framework within which managers work. The ten roles, grouped into three sets of roles: interpersonal; informational; and decisional. Interpersonal roles constitute figurehead, leader and liaison.

Informational roles involve monitor, disseminator, and spokesperson. And decisional roles entail entrepreneur, disturbance handler, resource allocator, and negotiator. Ansoff (1984 as cited by Obiefuna, 2014)'s typology of managerial roles includes: manager-leader; manager-controller; manager-administrator; manager-planner; and manager-entrepreneur. These role typologies have implications for strategic evaluation and control generally and human resource strategy evaluation and control particularly.

Most of these roles revolve around resources and communication. Gordon and Gordon (2004), for example, assert that a manager's role is to monitor the environment, gather and share information. This is a key task factor in strategy evaluation and control generally and in human resource strategy evaluation and control in particular. Consequently, the chief executive officer's knowledge of operating and external environment (Ireland *et al.*, 2009), attitudinal and behavioural commitment, involvement in human resource (Baron & Kreps, 1999), and communication of performance measures (Wheelen & Hunger, 2011) are vital. And according to Clark (2019), organisations exist in order to facilitate the communication of decisions.

As noted previously, roles stimulate behaviour. For organisations, consistent desired behaviour generates value. Among these behaviours include top management support of their subordinates. According to Jitpaiboon and Kalain (2005), top management support implies the degree to which senior executives understand the importance of a (management) function and are personally involved in its activities. According to Cash *et al.* (1992 as cited by Jitpaiboon and Kalain, 2005), among the indicators of top management support are distance between top management and the function as well as managerial attitude.

From the analysis and synthesis of managerial roles, this study derived the following variables of the top management support construct: resource allocation; commitment; involvement; and communication. Top management constitute senior executives. There is a widespread consensus that top management is the driving force in launching and promoting organisational learning (Vera and Crossan, 2004 and Hayton, 2005, as cited by Jitpaiboon and Kalain, 2005).

Board of directors holds top management primarily responsible for the strategic management of the organisation mainly by providing a strategic vision, strategic leadership, and managing the strategic planning process (Wheelen & Hunger, 2011). Executives also develop structure and reward systems (Ireland *et al.*, 2009), which influence the working of human resource. The chief executive officer articulates strategic vision, presents role for others to identify with and to follow, and communicates high performance standards as well as exhibiting confidence in the ability of followers to perform (Wheelen & Hunger, 2011). Managerial roles resonate at all levels of management.

But top managers hold a special place in organisations. According to Al-Omouh (2021), top management has been recognised as the most important resources of inspiration, for example in innovation and entrepreneurship. Unsupervised and enjoying unlimited discretion (Obiefuna, 2014; Ireland *et al.*, 2009), top managers generally give direction, control resources, communicate areas of emphasis and attention, and handle the relationship between the organisation and its external environment (Bateman & Snell, 1999). Murgan (2016) also outlines specific functions of top management: corporate planning; structuring organisation; selection of key officials; coordination of subsystems; and the exercise of control. But top management can also be problematic.

Principal-agent conflicts, managerial hubris, chief executive officer disease, can damage an organisation. Top management is responsible for overall performance; yet it is removed from operations (Digman, 2003). Lee and Teece (2013) drawing on Hambrick and Mason (1984) observe that top managers are cognitively limited in the view of the total organisation. The reason is that they work through other managers and thus highly dependent on others (Obiefuna, 2014).

This limitation then exerts more pressure for the need for effective control, as a re-assurance (Digman, 2003). Strategic control is, therefore, basically a top management responsibility (Certo & Peter, 1993). This limitation could also explain in part why human resource is short-changed by top management whose view of its contribution appears biased. This limitation further contradicts the thinking, though, that top managers are more advantaged in use of conceptual skills compared to other cadres of management and that they enjoy high levels of discretion (Obiefuna, 2014).

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2.2.4 The Social Systems Theory of Organisational Performance

In this study, the social systems theory (SST) anchored the performance construct. The social systems theory applied to organisations has origins in the General Systems Theory (GST), which according to Laszlo and Krippner (1998), arose as a general frame of inquiry. The GST postulates a set of bounded elements that are in exchange (Gregory, 2015) and proposes examining entities in wholes rather than their parts (Cordon, 2013). It thus, privileges holism in relation to analytical reductionism (Laszlo, 2018).

Literature credits the rise of systems theory to Ludwig Von Bertalanffy, a German biologist, in the 1950s (Mele *et al.*, 2010). Its basic ideas, though, had formed much earlier in the 1920s and 1930s, for example Jan Smuts in 1926 (Southgate, 2018), not to mention that holism itself, in principle, is far much older, being Aristotelian (Mele *et al.*, 2010), which suggested the whole being greater than the sum of the parts (Mckinsey, 2002). Bertalanffy sought to develop a theory that could apply to any entity regardless of the nature of its element, hence the term general; and the aim was to tackle complexity and the apparent tendency to integration.

Systems theory is about whole entities with characteristics different from those of its individual components. The whole cannot be understood by focusing on parts alone. The interrelated parts, however, interact regularly to give the unified whole its unique character (Cordon, 2013). A typical system's features include: has sub-systems; focus on holism; synergy; closed, open systems or partially so; and system boundaries (Gordon, 2021). There are also control mechanisms, feedback, and interfaces at boundary lines. Systems have objectives.

The interplay among these components drives performance, that is, the march towards its attainment of its objective (Verwijs, 2020). For most natural systems, the objective is that of survival. Hitchins (1992) points out that efficiency and effectiveness are measures of systems success. And according to Shaw (2009), some of the criteria for the performance of systems are efficiency, cost, productivity, and effectiveness, including cost-effectiveness.

Systems theory fosters systems thinking observers examine phenomena from different perspectives. Any phenomenon is a complex combination of many elements and has to be understood as such. Organisations comprise internal subsystems that have to be ceaselessly arranged to fit (Chikere & Nwoka, (2015). Systems science emerged as a response to the need for finding ways of understanding and dealing with complexity, and to correct the pitfalls of analytic reductionism by focusing on holism (Conklin, 2018). Focus on both supra-systems and sub-systems is an example (Gregory, 2015), or Internet of Things (IoT) as Kevin Ashton proposes (Lueth, 2014).

Systems thinking is rooted in Barry Commoner's laws of ecology, one which states: everything is connected to everything else (Foster, 2012). Systems thinking feeds strategic thinking, itself essential for strategic leadership (Hobbs & Midgley, 2021), which in turn implicates strategy in all its dimensions, including evaluation and control. Typical features of systems thinking are: focus on the whole system rather individual components alone; focus on process; seeking to understand potential causes and the dynamic factors that might be at play, including feedback loops; and tendency for 'big picture' thinking (Ndaruhutse *et al.*, 2019). Critics accuse human resource for, among other things, narrow focus.

Organisations are systems; and so are institutions. According to Mele *et al.* (2015), Katz and Kahn (1966) pioneered GST thinking for organisational contexts. In organisation studies, systems theory takes on a social version, the social systems theory of Nikla Luhmann (Clark, 2019). In its basic formulation, GST appears mechanical (Verwijs, 2020; Clark. 2019). According to da Silva and Parente (2019), organisational systems comprise the individual, the formal organisation, the informal organisation, status and roles, and the physical setting.

Clawson (2008) notes organisational systems include the management subsystem, the adaptive subsystem, information subsystem, the production subsystem, the boundary spanning, output subsystem, and the Maintenance subsystem. Clark (2019) considers elements like mission or purpose, objectives, and division of labour as holding organisations together. A human system is a set of people who communicate, and who have goals or directions. Decision-making is an inherent part of the individual, group, and community components, and Clark (2019) notes the interconnection of decisions sustains system memory. Thus, systems notions help see people and their interactions Gregory (2015) in pursuit of a predefined objective, an allusion to performance.

This conceptualisation of organisation as systems resonates with human resource management for organisations are primarily social entities, coordinating efforts of two or more persons. And as nothing exists in isolation, Mele *et al.* (2015) notes that value creation is related to other phenomena and is, then, both sub-systemic and supra-systemic. The people that comprise the organisation can be organised into groups, teams or organisation units. Human resource management organises people through systems, strategies, practices, policies, and transactions constitute an input into the organisational transformation process, and thus, implicate system performance via efficiency considerations.

According to Mwambi (2020), transformation process calls for system efficiency, system effectiveness of system to achieve its purpose. Synergy, by which the collective output of the whole system is greater than the sum of output of its sub-systems, is acclaimed. Human resource management systems, strategies, practices, policies, and transactions rarely get deployed singly as one set is likely to knock on to another. The inputs instead present in bundles (Boon *et al.*, 2019; Mello (2011).

According to Wolfgang (2004), human resource management entails the recognition of phenomena at very different levels. The systems and practices, therefore, require configuration (Verburg *et al.* 2007) to create alignment vertically and horizontally to spur synergy. Hierarchy arises due to the incidence of supra-systems and sub-systems (Gregory, 2015) as organisational elements interact among themselves and the organisation with the environment. Internal and external alignment is at the heart of evaluation of strategies and enables examination of performance at individual, sub-system, system, and supra system levels.

Performance is the end-game of all systems design. According to Chikere and Nwoka (2015), application of systems theory of management is necessary for corporate growth and profitability. Business value creation is individual, sub-systemic, systemic, as well as supra-systemic. The Systemic school affords a greater understanding of business organisations, interactions, and survival (da Silva & Parente, 2019).

Performance is multidimensional and implies different things for different organisations, and even for the same organisation depending on sub-system perspective. Examples are competitive advantage, survival, and cost-effective, and meeting needs (Torrington *et al.* 2008; 2005). Human resource measures required to show that people are an asset. Used interchangeably with the concept of effectiveness, performance constitutes the centerpiece of organisational principles and practice, those of control included. Its measurement, however, is contested among organisational stakeholders and researchers (Jenatabadi, 2015). This is particularly the case in the services sector where numerous intangibilities characterise performance. Even more contested is the human resource management-performance link, since measurement in human resource management is still intractable (Mello, 2011).

The causal chain between human resource management initiatives and performance is characterised by many unknowns in the 'black box'. According to Dugman (2003), methods of performance measurement are required and only in those areas of performance for which standards have been set.

Higher education is a system. It has sub-systems and is itself nested within a supra-system. Higher education institutions are similarly sub-systems within the higher education system, engaged in the input-throughput-output, which implicate efficiency, speed, quality, and effectiveness. The sector has to deliver within rising complexity (OECD, 2017). According to Mwambi (2020), the education system is a production function, with inputs and output. According to Clark (2019), the purpose of higher education is a broad and ambiguous one as well. This complicates the concept of performance.

Performance is examined at the level of individual, team (unit), and organisation; put another way, performance is systemic, subsystemic, and suprasystemic. Measures of performance require clarification of the concept made possible by paradigms. Robins (2000) outlines three approaches towards organisational effectiveness: Goal-Based; Strategic Constituencies; and Systems approach. According to Ashraf and Kadir (2012), there are four such approaches: Goal; System Resources; Process; and Strategic Constituency. The goal-based approach focuses on output to establish the extent to which the organisation meets the objectives. The strategic constituency is stakeholder-oriented, taking cognizance of both external and internal consequences of organisational operations.

The process approach is input-focussed, concerned with the efficiency of the transformation process. Systems model is broader and makes sense in a fast-paced, complex environment, allows for adjustments and re-adjustments enabled by feedback as situations change. It lays emphasis on criteria that will increase the long-term survival of the organisation (Robins, 2000). Robins (2000) further asserts that in systems, end goals are not ignored; they constitute only one element in a more complex set of criteria, including ability to acquire resources, internal maintenance, and successful engagement with the external surrounding.

In the context of higher education, Ashraf and Kadir (2012) have analysed a number of effectiveness models: Antia and Cuthbert (1976)'s nine-factor model; Kleeman and Richardson (1985)'s 10-factor 'Effectiveness Field Criteria'; Pounder (1999)'s nine-factor approach; An *et al.* (2011)'s two-factor approach; and Cameron (1978)'s nine-factor model. In all approaches, indicators majorly focus with student and staff outcomes.

Other attempts have also been made to examine effectiveness measures. Andrews *et al.* (1998)'s criteria in the Australian context includes broad context, staff, finance, and outcomes. According to Brusoni (2014), approach to excellence in higher education is four-pronged: excellence in management, in research, in teaching, and in student performance. Ballard (2013)'s KPIs are student-focussed: term to term enrolment; year to year enrolment; graduation rates; successful course completion; and number of credit hour completed. For Romney (1978, as cited by Ball and Hallwachi, 1987), performance indicators can be traceable to 'outcome goals' and 'process goals'. Kivati (2017) notes globalisation drives the ranking of world universities that then emerges as performance indicator.

Whichever models one works with, performance will be mediated by organisational people and people-related initiatives such as human resource strategy evaluation and control. Management's objectives are threefold: organisational; personal; and social (Murgan, 2016). As the environment in which organisations and institutions operate increases in complexity and changes dramatically, measurement of effectiveness and performance at individual, unit, and organisational levels will become even more intractable. The systems approach to management will be even more pertinent.

The focus of this study is on human resource capability-enabled performance, which according to Reddington *et al.* (2005, as cited by Torrington *et al.*, 2008), is considered as operational, rational, and transformational. In operational capability, the human resource function improves its own efficiency in terms of cost-effectiveness and headcount. In rational capability, the human resource unit improves its services to employees and managers; while in the 'transformational' capability, human resource overall impacts strategy. This compares favourably to Boudreau and Lawler (2016)'s measures of efficiency, effectiveness and impact. Generally, therefore, the performance impacts of Higher education institutions transcend their organisational or academic realms and on to its stakeholders, the natural environment, the economy and society (Findler, 2019).

The allure of the systems theory notwithstanding, a number of challenges stands in its use. For one, it based on the notion of the mechanistic view of organisations. This perspective has receded (Verwijs, 2020; Clark, 2019). And it is premature, particularly in the higher education context. Here the systems are still rigidly differentiated. According to Harney (2019), human resource is still very much micro-focussed contrary to the dictates of systems science.

Apparently, the structural position of human resource as an operational activity renders its specialists limited in big picture thinking. Clark (2019) downplays the role of individual actors in the system. Harney (2019) again criticises systems theory as hyperbolic on appeal and sentiment but short on predictive accuracy and specifics. According to Kehm (2013), the loose coupling of activities in Higher education institutions makes it difficult to establish causal relationships between academic tasks and results.

2.2.5 Institutional Theory of Higher Education

Organisational context has implications for performance. The environment is influential (Carvalho *et al.*, 2017) as organisations nest within them. Arguably, an organisation can be considered a portion of its own context from which it cannot continue to exist if it is plucked. Environmental dictates, thus, matter. Similarly, human resource management is context-dependent (Ikyanyon & Johnson, 2020). But human resource rarely addresses context (Mayrhofer, *et al.*, 2019).

The institutional context, comprising various institutions, has assumed prominence as an environmental factor. North (1990, as cited by Friel, 2017) defines institutions as humanly designed controls that structure human interactions. Scott (1995, as cited Peng, 2006)'s conception of institutions is that of 'regulatory', 'normative', and 'cognitive' structures and activities that give stability and meaning to social behaviour. Echoing Douglass North, Hodgson (2006, as cited by Gräbner and Ghorbani, 2019) consider institutions as durable systems of established and built-in social rules or constraints that shape social interactions. According to Hogan and Short (2018) six universal institutional spheres include family and kinship, economic, political, cultural, and stratification. Each has an in-built logic that creates stability and confers meaning (Friedland & Alford, 1991, as cited by Gümüşay *et al.*, 2020).

Societies' institutional frameworks consist of both formal and informal institutions. Formality is constituted by laws, regulations, and rules supported by the Regulatory or Coercive pillar. The Informal comprises Norms, Cultures, and Ethics, anchored by the Normative and Cognitive pillars (Peng, 2006). The argument in this research is that higher education performance is interpretable within institutional context. The focus is on the multiplicity of logics and inter-institutional competition giving rise to contradictory performance management practices (Modell, 2019).

Key concepts in institutionalism are organisational fields, legitimacy, institutional logics, and isomorphism (Hsu, 2018; Saebo, 2017). Scott (1995, as cited by Wooten and Hoffman, 2008) considers organisational fields a community of organisations that share a common meaning with actors interacting more often and fatefully with one another than with players outside the field. Legitimacy is the most critical of the dimensions of institutional theory; it is the acceptance organisations receive from their fields (Tang, 2017; Bhasin, 2017); the extent of cultural support context affords an organisation (Brinkerhoff, 2005). Theory recognises three types of legitimacy: normative/moral; pragmatic; and cognitive (Kuruppu *et al.*, 2019; Tang, 2017; Brinkerhoff, 2005).

Legitimacy has its source in consistency (Tang, 2017). Logics are the rules of the game that confer meaning to action. Isomorphism suggests organisations respond to environmental demands by creating homogeneous institutional structures in contexts characterised by similar behavioral patterns (Urbanek, 2021; David *et al.*, 2019). Three pressures to isomorphism are: coercive isomorphism, from legal or regulatory pressure; mimetic, from standard responses to uncertainty; and normative, from professionalization (Powell & DiMaggio, 1991 as cited by Kezar and Bernstein-Sierra, 2019).

The central premise of institutional theory is that institutions exercise control over social action. According to Meyer and Rowan (1977, as cited by Jančićjević, 2014), institutions determine organisational structuring and functioning. Its basis is the control that cultural institutions exert on social actors (Meyer, 2008). Organisations are cultural constructions; to survive, they have to convince the environment in which they nest of their legitimacy, which in turn justifies the support they seek from society (Meyer & Rowan, 1991, as cited by Carvalho *et al.*, 2017; Meyer, 2008). According to Raynard, *et al.* (2016), institutionalism rests on a number of principles.

One, organisations are not autonomous agents; logics constrain their action. Secondly, institutions carry social prescriptions. Third, conformance to prescriptions yields legitimacy. Fourth, the prescriptions get institutionalised. Fifth, conformity is privileged in relations to efficiency. And sixth, there is tendency to isomorphism. Thus, among the three pillars of strategic management is the Institutional-Based View, the other two being Market-Based View and the Resource-Based View (Tang, 2017; Peng, 2006).

The institutional theory arose as a counterweight to unrestrained market behaviour, or according to Krajnović (2018), the idiosyncrasy of organisations. Classical economics privileged rational choice with its deductionist, non-empirical hence context-free, 'highly individualistic and atomistic formulations' (Muthoo & Shepsle, 2017; Barkanov, 2016). According to Phillips (2018) and Nureev (2017), among the early institutionalists, largely from economics, were Veblen (1898, 1899), Hamilton (1919), and Commons (1934).

According to Janićijević (2014), institutionalism entered organisational studies in the 1940s through Selznick, March, and Simon. According to Bhasin (2017), Selznick institutionalised organisations. This ‘Old’ institutionalism persisted until the 1960s. There appears to have been a lull in institutional theorising until resurgence in the late 1970s with the works of Meyer and Rowan, Zucker, and DiMaggio and Powell, an effort called ‘New Institutionalism’ (Janićijević, 2014).

Higher education institutions are institutions. They are expressions as well as reproducers and transmitters of institutions. Meyer *et al.* (2007) note the university is a highly institutionalised social form, having developed to become so over many centuries. To begin with, higher education institutions are themselves subject to an increasing web of institutions and, are therefore, caught up in what Raynard *et al.* (2016) call institutional complexity. Institutionalism concepts are germane to higher education institutions. The higher education context constitutes an organisational field (Hsu, 2018). Universities seek legitimacy (Alajoutsijärvi *et al.*, 2015; Burawoy, 2015), as for example in restructuring (Bealing *et al.*, 2011) due to competition (Mushtaq, 2020).

The concepts of logics provide rationale for most of what universities do. Macro-level logics (such as profession, state, family, democracy, community, corporate, and religion) and field (organisational) level logics (such as marketisation, autonomy, and managerialism) weigh down on Higher education institutions (Cai & Mountford, 2021; Boitier & Rivière, 2016). Higher education is quite institutionally isomorphic, particularly at national levels (Meyer *et al.*, 2007). The isomorphic pressures are mimetic, coercive, and normative forces (Cardona, *et al.*, 2020; Ozturk, 2020; Caravella, 2011).

But organisations are hardly always sitting ducks in the face of contextual pressures. Neo-institutional theory privileges symbiotic associations between organisations and their contexts. This applies to higher education institutions as well. Not only does the environment determine the normative expectations for higher education institutions, but colleges and universities also help shape the perceptions and expectations of the environment, for example through new knowledge and department (Zucker, 1987). According to Benavot (2012), neo-institutionalism manifests in massification of higher education, schools as institutions, and impact of education on society.

Thus higher education institutions, their leaders, and staff have a leeway to shape the future, as universities carry independent actors, free agents - not slaves of institutions - (Patro, 2016), whose actions should disrupt the *status quo* (established institutions) for social progress. A way needs to be found by which while higher education institutions adhere to regulatory requirements, but still facilitate actors at the individual level within these institutions to exploit their potential for strategic thinking leading to new innovations. This is where creative human resource strategy becomes vital. And controls thereof should be deployed such that they do not stifle this, given that, by definition, strategy can be disruptive.

Human resources strategy could vigorously exploit the principles of neo institutionalism that emphasises more focus on individuals within in institutions, and their own conceptions, as opposed to rational choice, rather paying inordinate attention to governments and states. In this way evaluation and control can be much more holistic and meaningful. Kenya's higher education institutions are entangled in an institutional web: regulatory agencies; professional bodies; and peers. The tendency is to institutionalism isomorphism and stability is high.

The regulatory pressure in Kenya appears to push the organisational field of higher education to uniformity (CUE, 2014; RoK, 2012). Universities, then, become conflicted because there are other pressures that cause discontinuity: pressure to innovate and be entrepreneurial (Etzkowitz, *et al.*, 2000; Stal *et al.*, 2016); budgetary pressures; pressure to confront the unemployment of graduates; pressure to address the lengthy, even unpredictable, time-to-degree completion; pressure to address the insecurity within and around university campuses; pressure to deal with rising, and in some instances falling, enrolments, and to increase retention; pressure to enhance university-industry linkage; and pressure to attract quality academics.

These pressures morph into crisis, for example, is endemic to all universities (Burawoy, 2015; Harview, 2002). Harview (2002) writes that Australian Higher education institutions are crisis-ridden. According to Brennan and Stern (2017), colleges and universities are susceptible to crisis, which requires a special kind of leadership. In Kenya, financial crisis at universities has become a pet subject (Zezeza, 2020). But basic operational tasks like processing grades (Omanga, 2017) are assuming strategic dimensions.

The pressures higher education institutions in Kenya face require the institutions to embrace change. According to Chamorro-Premuzic and Frankiewicz (2019), universities as modelled today must be disrupted. Even as institutionalism favours stability, Higher education institutions are caught in the throes of change. Discontinuity drivers in higher education: globalisation; internationalisation; uncertainty; competition; financial crises; digitalisation; emerging countries; technological advancement (Babalola & Taiwo, 2016; Naidoo, 2014). It is a paradox: institutions, particularly public ones, maintain stability. According to Thoenig (2011), governments (and their agencies) create rather than adapt to environments.

Yet higher education institutions carry potential for change (Amano & Poole, 2005) and are in turn in the throes of change for, as crisis persists in universities, new style of leadership will be called for (Brennan & Stern, 2017). Recent milestones in Kenya that have impacted strategic rethinking in higher education: the Kenya Vision 2030 blueprint for national development whose Social Pillar prioritises education; and the Constitution of Kenya 2010. At the time of this research the policy guideline for development is the 'Big Four Agenda' by the second Jubilee Government. And Higher education institutions are bracing for further shifts as the government rolls out a new educational model, the Competence-Based Curriculum.

In the last decade of the 20th Century and first of the 21st, Kenya's higher education environment witnessed rapid expansion, raising concerns about quality. In response to quality concerns, the regulator requires universities to maintain a certain level of human resource and has issued criteria for career progression to that effect (CUE, 2014). This drive to continuity amidst discontinuity has implication for higher education institutions performance and effectiveness.

There may, for example, arise utilisation of less appropriate performance assessment dimensions, not out of consciousness or rationalism but due to organisational inertia rather (Greer, 2001). And the avenue for change becomes merely to adapt by imitating successful ones (Wheelen & Hunger, 2008). But the question is 'which ones?' since nearly all higher education institutions are crisis-riddled. Yet this coercive pressure has potential for the stakes of the human resource function: that of strategy leadership as higher education institutions are human resource-intensive.

The institutional theory presents a number of weaknesses for higher education. Multiple institutions and logics compete to breed conflict (Brocato & Kwok, 2018). Institutionalism also downplays human agency, pays little attention to the task environment, neglects geographical distance, and focuses on only one organisational field yet organisations are known to be allomorphic, nested in multiple environments (Cai & Mehari, 2015).

2.3 Empirical Review

2.3.1 Performance of the Human Resource Strategy

Performance is the centrepiece of organisational research (Looy & Shafagatova, 2016). Organisations exist to achieve something; their stakeholders expect something. Ultimately it forms the basis for evaluation of all activities, including human resource strategy. The reason is that performance has to be proven (Tanveer *et al.*, 2018; Deiacco *et al.*, 2010). Thus, mechanism to prove performance impose accountability on institutions by assessing results on the basis of managerial, corporate and market criteria (Atkinson-Grosjean & Grosjean, 2000) as well as industrial concepts (Pounder, 1999). According to Pounder (1999), higher education is now preoccupied with performance.

Conceptualising performance is intractable. According to Dobrin *et al.* (2012), performance is abstract; its definition is based on other concepts. It is pluralistic and dynamic (Sonntag & Frese, 2002). It constitutes a structure of correlative parameters some of them contradictory (Pintea & Achim, 2010). It can be frustrating to deal with performance. For example, Moneo (2017) notes it is more difficult to measure performances in public sector but it is a necessity. Defining performance, like other management terminology, is necessary to enable identification of the phenomenon (Ghalem *et al.*, 2016).

In academic institutions, performance discourse focuses more on academic performance. Accordingly quality takes centre stage in the academy, just as in economic activities, profitability drives performance. But performance is a result or achievement, methods or actions to produce results (Dobrin *et al.* (2012) and a state of success, or competitive advantage (Verboncu & Zalman, 2005 as cited by Pinteau & Achim, 2010). This conceptualisation gives rise to considerations of effectiveness and efficiency as dimensions of performance.

Performance as competitiveness is relevant strategy and, thus, germane to this study. According to Venkatraman and Ramanujam (1986, as cited by Ghalem *et al.*, 2016), performance is the 'time test of any strategy'. Arguably, business strategy has become a means for seeking competitive advantages (Klein, 2002 as cited by Cegliński, 2017). It means acquiring capability to outperform rivals (Eden & Ackermann, 2010) consistently, particularly on cost and quality dimensions. If as literature suggests, human resource strategy cascades from and supports business strategy, then it also aims at competitive advantages. There is a link then between human resource strategy and performance. The link can be established through human resource strategy evaluation and control.

Universities are caught up in competition. The changing external context is spawning competition. All organisations are involved (Mainardes *et al.*, 2011). The higher education context is being marketised (Levy, 2006, as cited by Mainardes *et al.*, 2011). Three areas in which universities do compete are: student enrollments; attracting reputable faculty; and mobilisation of resources. This complicates their notion of performance. But competition among these institutions, particularly within countries, gets constrained because they are regulated (Deiaco *et al.*, 2010).

Be that as it may, even a modicum of competition complicates the notion of performance for higher education institutions. And the response to this competition has a bearing on quality. As higher education institutions are complex entities, so is their idea of performance. The quality of academic and research output as well as student outcomes are notable as they are conspicuously celebrated. Quality is paramount (Kaur & Singla, 2019). But quality is an end state, an outcome, to which process is vital. Thus, performance is considered in terms of the end result as well as the journey to that result. This study conceptualised outcome in terms of effectiveness and impact, and process in terms of efficiency.

Effectiveness is one of the ways managers use to determine performance (Monea (2017). Effectiveness is a dimension that links outputs to objectives (Ponder, 1999). For human resources, effectiveness indicates ‘the outcomes produced by HR activities’ (NonprofitHR, 2018). The starting point is to compare achievement with the set goals. According to Spear (2019), among effectiveness key performance indicators are: financial; student success; admissions and enrollments; faculty and staff; and facilities and resources. Zhang (2020) argues that financial resources allocation is increasingly being based on a university’s actual output and performance rather than merely efficiency. Staff organisation is a factor in effectiveness (Lawlwer III, 2015).

Efficiency links inputs and output (Pounder, 1999). Rooted in economic theory, efficiency is concerned with optimisation of inputs. It focuses on how well or how productively institutions use resources to achieve goals (Jones & Goerge, 2006); the optimal relation between inputs and outputs (Rogers & Wright, 1998; Ismail *et al.*, 2011). Efficiency measures cost of a unit output; thus, it suggests rates of resource usage in achieving objectives.

Conceptualised as doing things right, it entails the proper use of the techniques and the technologies, particularly in the areas of operations systems and finance management' (Morin & Audebrand, 2014). Efficiency was always the initial focus of the personnel management field. And although human resource management attempts to de-emphasise the concept, it still is basic to the economic success of entities, and hence to human resource strategy.

Human resource management systems and practices are impactful. In human resources, impact indicates 'the business or strategic value created by HR activities, such as higher sales' (NonprofitHR, 2018; Boudreau & Lawler; 2016). According to Beer *et al.* (1984, as cited by Agyepong, 2019), human resource management policy choices ultimately lead to long-term outcomes. This constitutes individual well-being, organisational effectiveness, and societal well-being. Metrics for strategic objectives (NonprofitHR, 2018) are necessarily long-term. In this study, impact is that which affects student and staff success as well as university's third missions.

The quest to prove performance is preponderant. In human resource management, most studies have focussed on performance management. No study has sought to link the dimensions of business strategy evaluation and control to the human resource strategy and then to establish any relationships between those dimensions and performance. Thus, this study examines the relation of effectiveness, efficiency, and impact of human resource strategy evaluation and the performance dimensions, namely effectiveness, efficiency, and impact.

2.3.2 Human Resource Strategy Evaluation and Performance

Human resource strategy evaluation is the systematic process to establish the validity and workability of the strategy and its contribution to performance, the desired outcome of institutional activities. Human resource strategy, the most important of all human resource practices, is the mechanism by which business strategy gets implemented as the human resource system organises the workforce. Human resource strategy impacts individual employees, the human resource function, and the totality of the organisation thereby implicating corporate performance as well.

The importance of evaluation is to establish the worth of the human resource strategy, which in turn justifies time and effort towards the strategy as well as the position of the human resource function as a strategic partner rather than a mere administrative activity. By this activity, management is able to establish or link practices to performance (Caliskan, 2010) and to show that organisation-wide strategy is integrated. Human resource strategy evaluation proves that alignment exists; and alignment matters for performance (Kuipers & Giurge, 2017).

Evaluation entails determination of the value of a thing or the success of a programme (Rafiei & Davari, 2015). This is enabled by the collection, analysis, and interpretations of data concerning the evaluand (Weiss *et al.*, 2008). In this study, the evaluand is constituted by the human resource strategy in Higher education institutions. According to Ristic and Balaban (2006), the worth, or contribution, so judged could be primary or secondary, non-derivative (value *per se*) and derivative (values for some other thing) respectively.

Empirical literature in support of the contribution of human resource strategy evaluation with respect to higher education institutions is difficult to find (Peiseniece & Volkova, 2010), the implication being that the situation is direr for human resource strategy evaluation. In the literature, less attention is paid to human resource strategy evaluation than to human resource strategy control. And generally, human resource strategy evaluation is still under-researched in Kenya, mainly due to the fact that widespread strategising is hardly two decades old. The process, however, of evaluating human resource sub-disciplines, notably human resource planning, recruitment and selection, and performance appraisal is common, in theory, practice, and research.

Evaluation mechanisms have been shifting, or developing, with time. Phillips (2005, as cited by Peiseniece and Volkova, 2010), periodise the evolution of human resource evaluation and control in phases as follows: 1960s-1970s; 1970s-1980s; and 1990-present. The periods reflect shifts in focus of human resource evaluation: the first on attitude or compliance; the second on benchmarking or tracking; and the third on value add or impact (*ibid.*). This changing nature of higher education evaluation and control could be in response to the widening scope of the objectives of human resource management that have come to include societal objectives, organisational objectives, functional objectives, and personal objectives (Obi, 2016).

With the entrenchment of the strategy paradigm in organisational management, human resource evaluation too assumes a strategic focus. Another challenge with strategy evaluation and control studies is the interchangeable use of evaluation and control; and in some cases, evaluation is conjoined with control. For example, in an interpretative study, Agbanu *et al.* (2016) set out to examine the strategic evaluation of management control systems.

This makes it difficult to carry out a contribution analysis of each of the two practices on human resource strategy. Elbanna (2016) has investigated the presence of strategic human resource management practices in the Saudi Arabia higher education environment. The study reports that little attention is paid strategy evaluation and control. The study furthers no reference to human resource strategy evaluation and control as concepts, and only implies a combined use of evaluation and control.

In a study on strategic management and academic performance in Nigerian private universities, Babalola and Taiwo (2016) established that strategic plan formulation and implementation impacted positively on performance, but does not bring out the role of strategy evaluation and control generally, and human resource strategy evaluation particularly. Babalola and Taiwo (2016), however, lay emphasis on the need for enhanced tracking and feedback at a general level. The independent variables of commitment, inclusion (participation of employees), and reward are, however, heavily human resource in nature, which is emphatic of the role of the human resource function on strategy implementation.

Muraga (2015) has reported on the strategic human resource management practices in parastatals in Kenya. The researcher examined the relationship of recruitment, training, performance management, and compensation on organisational performance, as mediated by public sector culture and moderated by human resource capabilities. Among the salient gaps in this inquiry is the inattention paid to human resource strategy evaluation, which then begs the question as to how the performativity of these other practices can be determined. Similarly, Mbugua (2015) studied commercial banks in Kenya, examining strategic recruitment, strategic training, and strategic performance management as independent variables.

The relationship with employee retention, the dependent variable, moderated by employee commitment also revealed the lack to consideration of human resource strategy evaluation. Johnston (2008) studied the relevance of strategic human resource management for the growing small business in Australia. Independent variables were a management philosophy, planning for the management of people, linking human resource with organisation and business goals, and utilisation of human resource management technology to support the implementation of business strategy. Again, the aspect of human resource strategy evaluation is missing in this study.

Bossyut *et al.* (2014), studying strategy evaluation in European developmental agencies, establish that human resource factors affect the uptake and utilisation of evaluation results, which then impact overall outcomes in development interventions. Data-yielding measurement is vital to any evaluation. The United States Office of Personnel Management, as cited by Ulferts *et al.* (2009) in an analytical study, recommend use of human resource benchmarks in measurement. Beuren and Teixeira (2014)'s evaluation of management control systems in higher education in Brazil found performance measurement provides information for decision-making and consequently makes control possible.

Thus, any effect human resource strategy evaluation, as an independent variable, can have on performance, directly or otherwise, and must have something to do with the role of information characteristics. Bourdreau and Ramstad (2003, as cited by Peiseniece and Volkova, 2010) have examined human resource-related measurement approaches among them the following: efficiency of human resource operations; human resource activity and Best Practice indexes; human resource Dashboard or human resource scorecard; causal chain; and methods of measurements.

The study reports methodological ambiguities in approaches to HR evaluation; and Peiseniece and Volkova (2010) also do not consider human resource strategy evaluation among these approaches. In examining the appropriateness of the Balanced Scorecard in Higher education institutions, Patro (2016), alludes to the intractability of evaluation by pointing out the problematic features of Higher education institutions namely: lack of well-defined objectives and measurable outcomes; lack of authority by academic administrators; and compliance reports that convey little meaning to users. By definition, Effective evaluation, a rigorous and independent assessment of completed or ongoing activities (UNDP, 2009), is costly in time and resources. The instrumental, conceptual, symbolic, and process use of use of evaluation results is quite demanding (Bayley, 2008).

In sampled strategic plans of higher education institutions in Kenya, evaluation activities such as Scriven's key evaluation criteria (Persaud *et al.*, 2016) are not spelt out. These coupled with the general difficulties of strategy evaluation including the dramatic increase in environmental complexity, increasing number of variables, rapid obsolescence of even the best strategies, decreasing time span for which planning can be done (David, 2013) makes low the likelihood that crisis-riddled Higher education institutions can effectively and routinely carry out human resource strategy evaluation. Therefore, this study hypothesises that there is no significant relationship between human resource strategy evaluation and performance in universities in Kenya.

2.3.3 Human Resource Strategy Control and Performance

In theory, the place of the controlling function in management is incontrovertible. As a basic managerial activity, controlling contributes to organisational success by keeping activities on track. This is particularly the case with management and operational control systems. Literature indicates limited research on human resource strategy control and performance. Most studies focus on management control systems and tend to establish a relationship between the two. Orozco (2016) finds that management control systems positively influence performance, if deployed diagnostically as well as mediated through capabilities.

Orozco (2016) finds a significant relationship between diagnostics management control systems use and interactive management control systems use with performance. Kreutzer *et al.* (2014) establish that behaviour and outcome control serve as antidote to organisational politics, thereby positively influencing performance. And Lin *et al.* (2017) in a study of 83 new ventures in China founded between 1993 and 2007, and which issued initial public offerings in under eight years of start-up Lin, found a positive relationship between operational control and performance.

But in this study, the researcher hypothesised that there is no significant relationship between human resource strategy control and performance in universities in Kenya. Compared to management and operational control systems strategic control is under researched. This implies a dearth of supporting evidence for the link between strategic control and performance. Langfield-Smith (1997) summarised empirical studies on management control systems and strategy between 1972 and 1992 notes and concluded that link between management control systems and strategy was unclear.

Langfield-Smith (1997), though, considers the separation of strategic and management control systems not tenable any longer. This is especially the case where it is sought to empower employees as some strategies are wont to.

In a study on focus on top managers/executives in firms in the United States, Snell (1992) sought to develop control theory in relations to strategic human resource management. The study established administrative information as mediating variable of executives' knowledge of cause-effect relationships among key variables in the use of input, behavioural and output controls. Although the study was about strategic human resource management, Snell (1992) made no reference to the idea of human resource strategy control but recommend similar study to target other managers.

The present study builds on that recommendation to examine strategic control in relation to the human resource role. The fact that there is a lot of emphasis on management control systems and little on strategic control makes this study pertinent for the advancement of theory and to inform practice. Kitonga (2017) examined strategic control as a strategic leadership practice in not-for-profit entities operating in Nairobi County, Kenya, and established that strategic control was a tool for strategy implementation. The study Kitonga cites Hitt *et al.* (1999) as asserting strategic control is a tool for evaluating business level managers, which appears to raises questions about the applicability of strategic control to the human resoure function. Chikwe *et al.* (2016) also investigated the role of strategic control together with continuous improvement in water manufacturing firms in Nigeria.

The study also affirmed strategic control as a tool of strategy implementation, providing feedback and feedforward for the strategy process. Liao (2006) surveyed 93 firms, examining the effect of parent corporate control on human resource control systems of subsidiaries. Strategic control entails use of long-term and strategically relevant criteria by corporate level managers to evaluate the performance of division managers and their units. The influence of human resource control on performance depended on headquarter emphasis.

In Lin *et al.* (2017)'s study, strategic control was found to be negatively correlated to performance while operational control had a positive relationship with performance. This could be explainable by the fact that operational control is more objective than strategic control that is more subjective (Hitt *et al.* 2005) or that even because strategic control is long-term in orientation while operative control focuses on the near-term (Liao, 2006). It is noticeable, however, that the researchers did not pay attention to human resource strategy control. Kreutzer *et al.* (2014) in a survey of 184 European corporations on organisational control, politics, and the pursuit of strategic initiatives established that control served as an antidote to organisational politics. Their focus was on behaviour control and outcome control; with nothing mention of strategic control generally and human resource strategy control in particular.

Elbanna (2016) examined managers' autonomy and strategic control, noting that researchers like Kreutzer *et al.* (2014) addressed management control systems and not strategic control. Focussing specifically on human resource management controlling, which they classify as operative and strategic, Busina and Sikyr (2014) find that human resource strategy is hardly deployed by 'small and medium-sized building companies in the Czech Republic'. But then the implication is that there is not an human resource strategy control to pursue.

Closer to this study, Irechukwu and Gakwenzire (2018) researched the effect of special alert control on competitive advantage of Urwego Opportunity Bank, in Rwanda. In this case study, the researchers established that special alert control was significantly related to the reduction of non-performing banks and increasing loan portfolio. Turning to the higher education environment, a number of studies are available for review. In a study on strategic management and academic performance in Nigerian universities, Babalola and Taiwo (2016) surveyed management and academic staff of private universities in Nigeria focussing on strategy formulation and implementation.

Though Babalola and Taiwo (2016) did not examine strategic control and human resource strategy control, their findings underscore the criticality of effective tracking and feedback mechanisms in the strategy process. In an exploratory survey of heads of academic affairs and directors of personnel in universities in Riyadh *et al.* (2016) found strategy evaluation and control less researched in the Saudi Arabian higher education environment despite attempts to adopt strategic human resource management practices. Beuren and Teixeira (2014) researched a private university in southern Brazil focussing on management control systems structure and operations and performance. Again, human resource strategy control is found to be unattended to.

Taking cognizance of the mediating role of HRM practices on performance, Boudreau and Lawler (2016) in a survey established 12 measures of human resource unit's success, which then bear on overall organisational performance. They classify these measures as: efficiency, that is, resources consumed by HR; effectiveness, HR outcomes; and impact, referring to the business or strategic value created by HR activities. In total Boudreau and Lawler (2016) establish 12 items for assessing the performance of human resource.

This is in line with hierarchy of human resource tasks, namely, advisory, managerial, and operational. These in turn correspond with the three levels of organisational control namely, strategic, management control systems, and operational (Knicki & Williams, 2008; Chand 2009, as cited by Anyangwe, 2017). The present study combines Boudreau and Lawler (2016)'s classification of human resource performance with the theorised higher education institutions performance indicators.

Schreyögg and Steinmann (1987) distinguish surveillance control from environmental scanning. Simanjuntak (2018) investigated the role of feedforward control systems in small and medium enterprises performance in Indonesia, surveying some 150 managers. Using the structural equation modelling and partial least squares in data analysis, the study established that feedforward control influenced small and medium enterprises performance in terms of creativity, cost cutting, and innovation. But proactivity on the part of managers was found to be an important ingredient.

A rigorous system of strategic control conjures up images of a rigid, bureaucratic, planning that appears unfriendly to change (McConchie, 1998); this is not conducive to Higher education institutions, which according to Patro (2016) who sought to establish the relevance of the Balanced Scorecard in higher education, are populated by free agents. In sampled strategic plans of higher education institutions, feed forward mechanisms are not articulated. Human resource controlling and human resource analytics go together but metrics underdeveloped in Higher education institutions, as is the vital information technology background (Szucs, 2017).

In a conceptual paper, Walsh *et al.* (2010) also argue human resource management is not making an impact since the human resource professional cannot make the case for their function on basis of strong metrics. Relationship between strategic control and performance is problematic because while strategic control is futuristic (Ruefli, 2011, as cited by Gatimu *et al.* 2017), most performance is historical. According to Liao (2006), in a study on human resource management control system and firm performance, is strategic control oriented towards long-term, qualitative human resource indicators and thus serves managers and human resource officers as an evaluation management of the expedience and efficacy of the human resource system, its added value for managers, human resource officers, employees and the organisation (Busina & Sikyr, 2014). Its contribution to performance is, therefore, winding and may not be a guarantee.

Furthermore, studies in organisational control have focussed more on management control systems and operative rather than on strategic (Szucs, 2017; Liao, 2006; Snell, 1992). Additionally, strategic control rarely targets individuals (Liao, 2006), but instead focuses on the role of organisations, divisions, and units. Thus, this study formulated the hypothesis: there is no significant relationship between human resource strategy control with the performance of the human resource strategy in universities in Kenya.

2.3.4 Human Resource Strategy Evaluation, Information Characteristics and Performance

This study hypothesises the mediating role of information characteristics on the relationship between human resource strategy evaluation and performance. Abdussalaam and Majid (2017), in an extensive literature review, emphasise the need for mediating and moderating variables in management research, arguing that there are many unknowns in the ‘Black Box’.

Business strategy, human resource capital pool, and human resource practices rarely directly contribute to firm level performance; they are mediated by employee competencies and behaviours (Dessler, 2013; Wright & McMahan, 1992 as cited by Greer, 2001). A mediating variable constitutes a mechanism of transmission by which the independent variable affects the dependent variable (Blumberg *et al.*, 2011). In this study information characteristics have been introduced as the intervening variable, an unseen transmission mechanism.

Human resource evaluation is essentially an information system, being as it is, data-driven. According to Weiss *et al.* (2008), who have developed a guidebook to strategy evaluation in conjunction with the Southern California Injury Prevention Research Center (SCIPRC), among the key steps in evaluation are obtaining data and its analysis, and reporting findings thereof. Indeed, evaluation can be considered an exercise in the generation and assessment of performance data of a specified evaluand so as to establish whether or not what is supposed to take place is actually taking place. Weiss *et al.* (2008) consider the role of strategy evaluation as concerning the following issues: determination that strategy is working as planned; strategy is meeting stated goals; strategy's cost-benefits relationship; tracking strategy implementation; and provision of information to stakeholders. Thus, the elicitation of pertinent information marks the first step in the strategy evaluation process.

But information needs to be of some quality to be germane to the entire strategy process. Winter *et al.* (2001) in a paper on strategic information management plans in hospitals, distinguish between strategic, tactical, and operational information which reflect level of detail of data mined for use at different organisational levels. Snell (1992) theorised the mediating effect of administrative information in control systems, strategic human resource management, and managerial knowledge of cause-effect relationships.

In a survey to understand information quality in a digitised context, Kumar and Jakhar (2016) show how the challenge of insufficient information quality is palpable. According to Wang and Strong (1996, as cited by Kumar and Jakhar, 2016) present a three-fold categorisation of information quality dimensions on the basis of the perspectives of users of information: the intrinsic view comprising accuracy, timeliness, and consistency; the context view constituting relevance, completeness, currency; and representational, involving format. Among the contextual view was the effect of managerial level of the users of information.

These quality attributes and user perception of information quality are the transmission mechanism for the mediating role of information characteristics. In relation to human resource strategy evaluation, the information characteristics most suitable appear to be the information search, processing, representational information quality as well as its level of detail. Laumer *et al.* (2017), in a survey of 247 enterprise content users in Germany, conceptualised the attribute of representation as consisting of presentation, consistency, and understandability. For ease of use by different levels of management, information has to be in a form that is brief enough. Thus, necessary discrimination is called for so that information is appropriately categorised as strategic, tactical, and operational.

The information characteristics have implications for the derivation and use of human resource performance indicators, namely human resource effectiveness, human resource efficiency, and human resource Impact. But Mintzberg (1994), in a conceptual paper, advocates the need for less formalised information such as hearsay and gossip as input in strategy. Amaeishi (2013) has also reported little systematic evaluation among firms and companies failing to indicate how they tracked strategy. Kumar and Jakhar (2016) show the challenge of insufficient information quality is palpable.

In most organisations, human resource management rarely has access to strategic information, human resource information system is less robust, and human resource metrics remain underdeveloped. And in the context of higher education institutions, systematic examination of these relationships is lacking. Accordingly, this study hypothesises that information characteristics have no significant influence on the relationship between human resource strategy evaluation and performance in universities in Kenya.

2.3.5 Human Resource Strategy Control, Information Characteristics and Performance

The indirectness of many of relationships in organisational work has been noted (Ismail *et al.*, 2017; Ismail *et al.*, 2021). Effects of independent variable on dependent variable are in most cases inferred (Cooper & Schindler, 2008). This study hypothesises a relationship between human resource strategy control, information characteristics, and performance in universities in Kenya, presenting literature for and against the significance of the proposed mediation. A number of researchers have provided conceptualisations of information characteristics.

Kumar and Jakhar (2016) surveyed 64 managers on the different aspects of information standards from the perspective of information users and identified the features of information quality based on three views: intrinsic (accuracy, timeliness, consistency); context (relevancy, completeness, currency); and representational (format). Curtis and Cobham (2004) examined the following attributes of information: time horizon; level of detail; source; degree of certainty; and frequency. Laumer *et al.* (2017) introduced user satisfaction, a prerequisite of which is understandability.

The case for the role of information in management generally is well documented. Opoku (2015) observes that well-informed societies are vibrant and prosperous; and information influences direction setting and alter course of decision making. Snell (1992) has found that amount and type of administrative information is a positive predictor of human resource management control. Administrative information is constituted by managers' knowledge of cause-effect among key variables in a control system, and the crystallisation of standards of desirable performance. Schreyögg and Steinmann (1987) consider strategic control an aspect of feedforward control system, implying using of data and information.

According to Simons (1995, as cited by Agbanu *et al.* 2016), management control systems are information-based and impact strategy formulations and implementation. Beuren and Teixeira (2014) found that control systems structures and operations together with performance management hinged on information flow. Schreyögg and Steinmann (1987) found that surveillance control is basically monitoring, which amounts to data gathering, as Hamilton (2014) has reported, particularly data on threats. But contributions of information systems appear contingent upon other factors. These include the structural power, where the hierarchical position of information officers matters (Cohen & Dennis, 2010).

Bossuyt *et al.* (2014) find the uptake of evaluation results in European Union Development agencies is less than optimal. Babalola and Taiwo (2016) in their study of academic performance of private universities in Nigeria emphasise found weak feedback systems. Amaeishi (2013) has also reported on little systematic evaluation among firms and companies failing to indicate how they tracked strategy. Widespread information quality insufficiency (Kumar & Jakhar, 2016) exists side-by-side information overload!

The processes and time taken to transform data from information into knowledge and then wisdom is unclear. Thus, in the context of Higher education institutions, this study hypothesises that information characteristics are not significant mediators on the relationship between human resource strategy control and performance.

2.3.6 Human Resource Strategy Evaluation, Top Management Support and

Performance

This study is hypothesised the moderating role of top management support on the direct relationship between human resource strategy evaluation and performance in universities in Kenya. A moderating variable is one with a significant contributory or contingent effect on independent-dependent variable relationship (Sekaran & Bougie, 2013; Cooper & Schindler, 2008). The role of environmental factors in facilitating or constraining is well-established in the literature; and top management constitutes a prominent internal contextual factor. Top management, by its interpersonal, informational and decisional roles, could amplify or enhance, reduce, or antagonise the independent variable-dependent variable dynamic.

Top management support is operationalised as resource provision, commitment, communication and involvement. Mwajuma (2013) found management style positively related with strategy implementation and noted further that top management ownership and involvement went beyond strategic planning into implementation. The author does not, however, consider evaluation. The multidirectional form of communication and participation by employees appears to have a significant impact (Mwajuma, 2013). Babalola and Taiwo (2011) report that top level commitment and promotion of participation (involvement by staff) are vital in strategic management.

Bossyut *et al.* (2014) report on the important role of senior management in the promotion of a learning culture that facilitates uptake and utilisation of evaluation results. In Ruzgar and Kurt (2013)'s study, the interpersonal and informational managerial roles assume greater significance, pointing to a positive relationship with human resource strategy evaluation and human resource strategy control, which are heavily dependent on the flow information. Still at the strategic level the role of top management cannot be disputed. Madanayake (2014) confirmed the positive role of top management support operationalised as strategic view, roles played, sponsor of business case, communication and decision-making.

But other studies contradict the contribution of top management. Beuren and Teixeira (2014) found deficiency in communication of strategic plan by senior management. Lee and Teece (2013) comment that some studies show less critical role of top management compared to middle management, top management suffer cognitive limitations and biases. Mwajuma (2013) found communication not to play a significant role in strategy implementation among NGOS in Kenya. Mwajuma (2013)'s finding finds support in one university in Kenya, which in a situational analysis to revise its strategic plan, identifies communication as a weakness. Thus, this study hypothesises that top management support has no significant mediating role on the relationship between human resources strategic evaluation and performance in universities in Kenya.

2.3.7 Human Resource Strategy Control, Top Management Support and Performance

In this study, the researcher hypothesised the interaction of top management support with the direct relationship between human resource strategy control and performance in universities in Kenya. This is borne of the realisation that contextual factors facilitate or constrain direct relationships among variables; and top management is a key internal environmental factor.

Strategic control and human resource strategy control, ideally, should be the province of top management. The reason is that strategic control involves oversight and steering. According to El-Toukhy (2021), strategic control is an essential part of the strategic manager's job, which focuses on completion planned activities and entails monitoring, evaluating, and improving various organisational activities. The indicators of top management support were: resource allocation; commitment; involvement; and communication. The activities of building strategic control namely aligning appropriate structures, building skills, setting control targets, and dismantling bureaucracy (Bungay & Goold, 1991) have far reaching implications so that top management support is imperative.

Structural elements of specialisation, standardisation, formalisation, centralisation, configuration (SHRM, 2022) have implications for the hypothesised top management indicators. According to Child (2015, as cited by Yabarow and Muathe, 2020), excess hierarchy causes communication problems, for example withholding information or re-interpretating instructions. Structures also implicate the position of human resource management in the hierarchy; this in turn affects the functions prestige and power over resources. Dismantling bureaucracy has to do with empowering employees (Dillon, 2020); only top managers can restructure for this to be realised, thereby unleashing their creative and innovative power.

And yet, argues Denning (2014), it is the “the ideology of controlism” that leads bureaucracy to “worship at the altar of conformance”. According to Bungay and Goold (1991), line managers accept planning responsibility and perform well to the extent that they adequate support is forthcoming.

According to Mikovca (2007, as cited by Busina and Sikyr, 2014), human resource management controlling includes strategic and operative aspects, but role of top management does not come out. In a survey of 174 hotels in the Gulf Cooperation Countries, Elbanna (2016) found strategic control to be a powerful antidote to organisational politics although it could be negated by managerial autonomy of middle managers that heightens organisational politics.

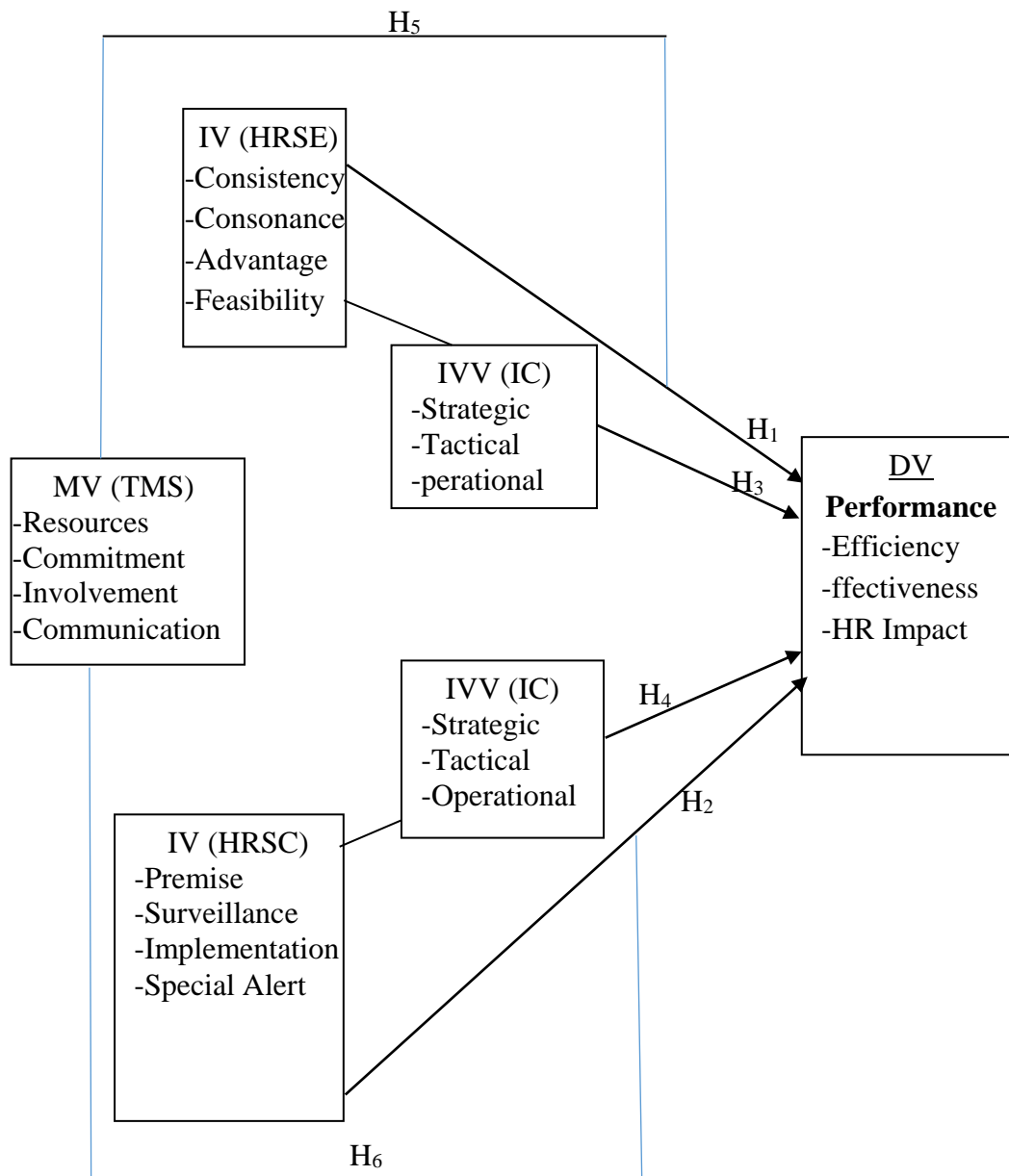
But some studies indicate a less significant role of top management. In a number of case studies on the necessity and sufficiency of top management support on projects, Young and Poon (2013) found top management support disproportionately significant for project success. This could be due to the fact, as Obiefuna (2014) suggests, that top management enjoys high discretion but then is highly dependent on other managers. That implies the specific contribution of top management support is difficult to quantify. In addition, top management has insufficient division-specific, operating knowledge, especially in large organisations as it suffers from cognitive limits (Lee & Teece, 2013).

And according to Newell (2017), many chief executive officers still consider human resource a backroom function. Therefore, the role of top management in human resource strategy control is inconclusive and, thus, this study makes the claim that top management support has no significant influence on the relationship between human resource strategy control and performance in universities in Kenya.

2.4 Conceptual Framework

This study aimed at first validating the dimensions of business strategy evaluation and control dimensions in relations to human resource strategy evaluation and control. Then it sought to establish the relationship between these two constructs and performance, directly and indirectly through mediation of information characteristics and the moderation of top management support in the context of higher education in Kenya. In studies of this nature, conceptualisation is often accompanied by visual representation of the interplay among the variables of study. According to Swaen (2015), the visual format displays boxes for variables, arrows for causality, and lines for correlation. Figure 1 below is a conceptual map illustrating the interplay among these study variables.

Figure 1: Conceptual framework



Key: HRSE -human resource strategy evaluation; HRSC -human resource strategy control; IC - information characteristics; TMS – top management support.

The variables in this study were: human resource strategy evaluation and human resource strategy control, the predictor variables; information characteristics, the intervening variable; top management support, the contingency variable; and performance of the human resource strategy, the criterion variable.

The researcher operationalised the variables as follows: human resource strategy evaluation as consistency, consonance, advantage, and feasibility; human resource strategy control as premise control, implementation control, surveillance control, and Special Alert control; information characteristics as strategic, tactical, and operational; top management support as resource allocation, commitment, involvement, and communication; and performance as efficiency, effectiveness, impact.

The independent variables of human resource strategy evaluation and human resource strategy control affect the performance in two ways: directly and indirectly. The direct relationship arises from the fact that organisational activities are monitored as a matter of course; management by definition entails controlling, which ensures that the right things are being done in the right way to generate what is supposed to be generated. In this study, the things that need to be done revolve around human resource strategy evaluation and control; what is supposed to be generated include human resource efficiency, human resource effectiveness, and human resource impact, which affect overall performance.

The study hypothesised the relationship between human resource strategy evaluation and human resource strategy control with performance as indirect through the mediation of information characteristics. The Techniques and tools of evaluation and control yield information that if utilised should correct or improve the systems and cause greater value creation. Information characteristics necessary for effective evaluation and control include the nature of information (whether strategic, tactical, or operational), accessibility, and utilisation. Control systems are information-based and without the requisite processed data, the systems fail.

Top management is an important internal factor in organisational work. Executives focus the organisation by providing overall direction, allocation of resources, and generally signalling what is desirable and what is not. Organisation-wide activities such as questions of strategy require top management endorsement through allocation of resources, involvement, communication, and commitment. Thus, top management support is a contingent factor in the relationship between human resource strategy evaluation and human resource strategy control and performance.

Alongside the study's conceptualisation process was operationalisation of the constructs. The operationalisation of variables is vital for instrumentation for the consequent elicitation of the requisite information to respond to the research questions (Gilfoyle *et al.*, 2022). By this process, the variables in the study were broken down into observable indicators as detailed in the research instrument. Table 1 illustrates this process.

Table 1
Operationalisation framework

Variable	Indicator	Source	Measurement scale	Instrument Items
Human resource strategy evaluation	Consistency	Yadav (2011)	Five-point	16 items
	Consonance	Digman (2003)	Likert-type	
	Advantage	Baron & Kreps (1999)	scale	
	Feasibility	Certo & Peter (1993) Rumelt (1979)	(1-5) - Strongly disagree to strongly agree	
Human resource strategy Control	Premise control	Pearce & Robinson (2003)	Five-point Likert-type	14 items
	Strategic Surveillance	Schreyögg & Steinmann, (1987)	scale	
	Implementation control	(Yadav, 2011)	(1-5) - Strongly disagree to strongly agree.	
	Special Alert control			
Information Characteristics	Strategic, Tactical, Operational (Information infrastructure Types of information quality	Gordon & Gordon (2004) Bossyut, Shaxson, & Datta (2014) Hamilton (2014)	Five-point Likert-type scale	12 items
	Intrinsic, Contextual, Representational)	Opuku (2015)	(1-5) - Strongly disagree to strongly agree	
	Resources	Bateman & Snell (1999)	Five-point Likert-type	
	Involvement	Baron & Kreps, (1999)	scale	
Top Management Support	Commitment		(1-5) - Strongly disagree to strongly agree	12 items
	Communication			
Performance	Human resource Effectiveness	Boudreau & Lawler (2016) (Digman, 2003)	Five-point Likert-type scale	14 items
	Human resource Efficiency	Torrington et al. (2008)	(1-5) - Strongly disagree to strongly agree	
	Human resource Impact			

2.5 Research Gaps

From the foregoing literature review, a number of gaps were evident some of which this study attempted to fill. To begin with, strategy evaluation and control is limited in empirical literature. Most of the literature was conceptual. This phase of strategic management had not been given adequate attention in research. Instead scholars paid attention to management and operational control. In relation to human resource strategy, a functional level strategy, the concepts human resource strategy evaluation and human resource strategy control were found lacking. And generally, human resource strategy was found to have been inadequately treated, theoretically and practically, at universities in Kenya. Finally, many studies were found to have ignored mediation and moderation analyses.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The preceding two chapters of this thesis dealt with how the researcher conceptualised and operationalised the study. This chapter generally presents how the researcher gathered data, and was structured as follows: research design, including its philosophical underpinning; the target population; the setting or location; sampling design; sample size; instrumentation; data collection; data analysis; and ethical considerations.

3.2 Research Design

This study rested on the positivistic philosophy of inquiry, which stresses the method of science or empiricism in the pursuit of the understanding about reality (Bryman & Bell, 2007; Zamora, 2012) and solution of problems. According to Babbie (2001) there are four methods to knowledge acquisition: personal experience; authority; tradition; and science. All have weaknesses in their approach to the pursuit of truth or understanding reality, but science is billed as being the least fallible.

The scientific method is logico-empirical; it combines deduction and induction processes, or logic and observation (Babbie, 2001; Cooper & Schindler, 2008; Sekaran & Bougie, 2013). This method rests on three pillars: rationality (or theory); observation (research methods); and statistical analysis (Babbie, 2001), wherein its power is established. Bryman and Bell (2007) have juxtaposed science or objectivism with interpretivism and constructivism. But the three traditions cannot be said to be completely mutually exclusive. Debate on the suitability of this method to the social world is heated and unending. Most business schools, however, have embraced the method of science, hence this study's adoption of the same.

On the basis of science, resolving research problems is systematic and organised, key steps being logically laid down; hence the concept of research design as the blueprint for the conduction of investigation to resolve the research problem. Kothari (2004) considers research design to be the logical framework or structure that generates desired evidence in an accurate, unbiased, and economical way so as to minimise the incidence of invalid conclusions. It involves operations for gathering information as well as the logic behind those operations, which provides this chapter heading: Research Method(ology), that is, the methods and their logic.

Specifically this study adopted was the Cross-Sectional design. This represents a snapshot, capturing the phenomenon of interest at a point in time. In this case, the point in time was the year 2019. According to the USCL (2016), this particular design focuses on studying and drawing inferences from existing differences between people, subjects, or phenomenon, is amenable to use of data from a large number of subjects, and is not geographically bound. These attributes were germane to this study.

Practical research work can, however, be hardly said to be mutually exclusive; thus, within this cross-sectional type, traces of exploration, description, and explanation were to be found. There are drawbacks that can be pointed out of cross-sectional studies: one, similar subjects can be difficult to find. Secondly, as Bayo-Moriones and de Cerion (2002) note, these designs do not establish causality. Third, in a fluid environment such as the one that attend to higher education institutions in Kenya, snapshot results, results that are static and time-bound, historical or temporal, could vary with time and become obsolete shortly. And lastly, events in the real world are hardly sequential, which precludes one from building on the past. Cross-sectional studies continue to be the design of choice for most postgraduate programmes.

3.3 Location of the Study

The study was based on sampled public and private universities within the Republic of Kenya as mandated to operate by the Commission for University Education (CUE, 2014). They are spread across the country and among Counties in which the sampled universities are located include Bungoma, Kakamega, Kisumu, Migori, Homa Bay, Kisii, Turkana, Nandi, Bomet, Kericho, Uasin Gishu, Nakuru, Laikipa, Narok, Kajiado, Mombasa, Kilifi, Taita Taveta, Kitui, Machakos, Meru, Tharaka Nithi, Embu, Nyeri, Murang'a, Kirinyaga, Nairobi, Kiambu, Garissa. This is evidence of how quickly universities have expanded and spread, with implications on human resource management and strategy. The study sample was equally spread across the country giving this study its quality as a survey.

3.4 Population of the Study

A statistical population comprises the collection of all possible observations of a specified characteristic of interest (Lapin, 1990). This collectivity is also referred to as universe, target population, or theoretical population from which an accessible population can be derived. Population is central to research as it bears the characteristics under investigation, hence the criticality of accessibility. There are a total of 74 universities in Kenya classified as follows: 31 chartered public universities; 18 chartered private universities; 14 universities with Letter of Interim Authority (LIA); five (6) constituent colleges of public universities; and five (5) constituent colleges of private universities (CUE, 2017). A representative sample was drawn from this population. The unit of analysis was the entire university since human resource unit, which naturally, is system-wide. The respondents were the Registrar (Administration) whose responsibilities include the human resource function.

According to Kazmi (2008), participants in strategic control include: members of the board of directors; chief executives; SBU and profit-centre heads; financial controllers, company secretaries, internal and external auditors; and middle level managers. Within the university context, the Registrar (Administration) listed as among the ‘chief officers of the university’ felt within this classification.

Universities in Kenya are caught in the grip of change and crisis. Among the responses thereof had been has intensified strategic planning. As service entities, labour is the largest of their inputs, which is an onerous responsibility for their human resource units. The institutions, therefore, provide an ideal setting for investigating the workability of human resource strategy evaluation and control. As the research got underway fresh demands were issued to universities to begin to work out and submit to the authority modalities to merge. Table 2 indicates the population of universities by categories.

Table 2

Study Population by university category

University category	Frequency	Proportion
Chartered Public	31	42%
Public Constituent Colleges	06	08%
Chartered Private	18	24%
Private Constituent Colleges	05	07%
With Letter of Interim Authority	14	19%
Total	74	100%

Source: CUE (2017)

3.5 Sampling Procedure and Sample Size

This study was a sample survey. This is conceptualised as ‘the collection of information from a sample of individuals through their responses to questions’ (Check J., Schutt R. K., 2012 as cited by Pronto, 2015). This inquiry was a sample survey as opposed to census.

Lapin (1990) notes that for reasons of economy, time factor, inaccessibility of sections of the population, and accuracy, sample survey becomes more advantageous than complete enumeration. The challenge with sample surveys is for sample results to approximate the population characteristics. To meet this qualification calls for careful attention to sampling procedure and sample size.

3.5.1 Sampling Procedure

The researcher employed probability sampling design, the purpose of which was to ensure all members of the universe had an equal and likely chance of being included in the study. According to Dooley (2001), probability designs increase representativeness of the sample by reducing bias in sampling as would be likely in non-probability sampling designs. To pick the actual sample, the researcher used Stratified Sampling and Simple Random Sampling method with the aid of a table of random numbers assigned to elements on the sampling frame. The researcher accessed the sampling frame from the Commission for University Education (CUE, 2017) website.

3.5.2 Sample Size

The sample for the study was picked in such a manner as to assure representativeness and economy in the elicitation of the required data. Three key statistical considerations for sample size determination were used: level of accuracy sought; level of confidence; estimate of the proportion of the population thought to carry or not to carry the characteristic the researcher sought to investigate (Vernoy & Kyle, 2002; Lapin 1990; Shaughnessy *et al.*, 2006). Thus, the research employed Yamane's formula for sample size computation:

$$n_r = N/(1 + Ne^2) \dots\dots\dots(1)$$

where,

n_r = required sample size;

N = population size; and

e = alpha level, level of significance or level of accuracy desired.

In this study, the level of accuracy sought was provided by the level of significance, represented by $\alpha = 0.05$, whose corresponding level of confidence was 95%. The population size of the universities was 74 (CUE, 2017). Substituting these quantities into the first equation gives a required sample size of 62.4472, rounded off to 62. A requirement for finite populations is for the sample size so computed to be adjusted using the the Finite Population Correction Factor indicated below. The adjustment yielded a sample size of 33.98, rounded off to 34.

$$n_a = n_r/(1 + [(n_r - 1)/N] \dots\dots\dots (2)$$

where,

n_a = the adjusted sample size;

n_r = required sample size; and

N = population size.

According to Lucey (1996) and Spiegel and Stephens (1998) any sample of 30 elements and more qualifies to be classified as a large sample and suffices for a wide array of analyses. Thus, the researcher drew a sample of 34 using two sampling techniques: stratified sampling; and simple random sampling was allocated proportionately across the categories, serving as strata drawn randomly from a list of 74 universities obtained from the CUE.

The researcher used two sampling techniques to draw the sampling units. According to CUE (2017), universities in Kenya fall into four categories (Appendix III): chartered public (31); public constituent colleges (06); chartered private (18); and private constituent colleges (05). The researcher ordered the sampling frame by year of establishment of the universities, oldest first, and a table of random number used to pick the actual elements included. Table 3 indicates sample selection by university category.

Table 3

Sample size by proportion of university category

University category	No. of Sampling Units	Proportion
Chartered Public	14	42%
Public Constituent Colleges	04	08%
Chartered Private	08	24%
Private Constituent Colleges	02	07%
With Letter of Interim Authority	06	19%
Total	34	100%

Source: CUE (2017).

3.6 Instrumentation

The research elicited data using self-administered questionnaires. Being self-administered, it is fast, cost-effective and generates large amounts of data. The tool was in two parts: Part I comprising preliminary information; and Part II comprising five sections on human resource strategy evaluation, human resource strategy control, information characteristics, top management support, and performance. The preliminary section consisted of open and closed-ended questions. Statements on the study variables indicators of the variables were adequately grounded in the literature reviewed for example Boudreau and Lawler (2016), Beuren and Teixeira (2014), and Snell (1992), and were scored on a five-point Likert-type scale.

The researcher borrowed from literature established principles of instrument construction including appropriate wording, avoidance of emotional language and prestige bias, and careful approach to sensitive information (Neuman, 2011) and the researcher commitment to and promise of confidentiality (Salkind, 2000). As a fairly experienced and well-informed member of senior management, the Registrar (Administration) was expected to have no difficulty comprehending and responding to the statements made on the instrument. As Saunders *et al.* (2003) recommend, the design of the instrument was such that it appealed to the motivation of the respondents some of whom were scholars in their own right questionnaires.

3.6.1 Pilot Study

The researcher carried out a pilot study. This is considered a small version of the main study. The purpose of this mini study study was to check the research instrument for reliability and validity. The suitability of statement items was of particular focus (Saunders *et al.*, 2003). These statements created the interface between theory and research and, thus, implicated statistical modelling in data analysis. According to Gurka (2017), item assessment entails a ‘mechanistic efficacy’ test of the design and to provide ‘proof of concept’.

The study employed 12 ideal participant surrogates (Cooper & Schindler, 2008) from 12 universities which were then excluded from the main study. This is consistent with Bell *et al.* (2018) analysis of sample size determination in pilot studies. They argue in a detailed way for a stepped rule of thumb that sets 10 elements in a pilot sample for an overall sample sizes of 34 and less, which was the case for this study. Fink (1995, as cited by Saunders, *et al.*, 2003), recommends a minimum of 10 respondents for a pilot study.

Johanson and Brooks (2010) support this approach, arguing that the nature of sample, rather than size *per se*, presents the largest impact on accuracy of estimates of parameters. Generally, respondents in the pilot study did not report difficulty in completing the instrument. This provided advance signal of the relevance of the theorised constructs.

3.6.2 Validity of the Instrument

In survey research, data collection is akin to taking measurement in experimentation. Thus, the questionnaire items were required to carry validity, that is, the appropriateness, meaningfulness, correctness and usefulness of the inferences a researcher makes and which is, therefore, strongly correlated with the questionnaire items. The validity question required of instruments was about whether or not what was being measured was actually what was supposed to be measured. Validation process was undertaken to verify claims that were made from the findings.

The researcher established validity by using both the panel of experts at Kabarak University, including supervisors, a rigorous examination of the proposed study, and results of the pilot study. This study paid attention to three kinds of validity: Content validity; Construct; and Criterion validity (Cohen & Swerdlick, 2004), all have strong basis in the theoretical and empirical literature the researcher reviewed. Jitpaiboon and Kalain (2005), echoing Kerlinger (1978) and Nunally (1978), contend that evaluating content validity is a rational judgmental process.

3.6.3 Reliability of the Instrument

As a survey study, the research instrument was deployed to 34 respondents. It was, therefore, imperative that the respondents apply the tool consistently in order to, according to Cohen and Swerdlik (2018), bring out the true variance in the responses.

Reliability, thus, has to do with the dependability of the questionnaire. To determine the internal consistency, the researcher performed inter-item correlation on the the responses from the pilot study in line with Salkind (2000). The researcher focussed on Inter-rater and Internal Consistency reliability as opposed to the whole range of reliability measures including Test-Retest and Parallel forms again as recommended by Salkind (2000). A reliability coefficient, more specifically, the coefficient alpha, was determined according to Kaplan and Saccuzzo (2006), as follows:

$$r = \alpha = N/(N-1)(S^2 - \sum Si^2/S^2) \dots\dots\dots(3)$$

where,

$r = \alpha$ = reliability coefficient, alpha;

N = number of items on the instrument;

Si^2 = Variance of the individual items, I;

S^2 = variance of the test score.

Cronbach’s alpha was preferred for its treatment of inter-item correlation, which allowed the researcher to determine overall consistency, established at 0.96 (96%), as well as the reliability of subscales. Mburugu (2015), Oswagwu (2001), have determined reliability in similar fashion.

3.7 Data Collection Procedure

As required by the regulations, the researcher, on the recommendation of the Kabarak University, sought from the National Commission of Science, Technology and Innovation (NACOSTI) authorisation to collect data.

Armed with the research permit, the researcher established the initially contact with the offices of Registrar (Administration) of the sampled Higher education institutions, to obtain telephone numbers and email addresses. Four research assistants were tasked to carry out this initial assignment.

Information security has become a global issue, which could make institutions restive about releasing information to researchers. Thus, to foster co-operation, avert non-response and thereby increase the response rate, the researcher research addressed the introductory cover letter personally to the Vice Chancellor of the sampled unit to request clearance for the targeted registrar to complete the research instrument. In all 34 letters were mailed. The researcher and the assistants then made prior notification by telephone and, in some cases physical appearance, to inform the actual respondents about the intended survey.

3.8 Data Analysis

3.8.1 Summary and Presentation

The researcher cleaned and edited the returned instruments for completeness, consistency, accuracy, and homogeneity. This generally afforded the researcher an overview of what the data portended as suggested by Shughnessy *et al.* (2006). Items were then coded and entry made into the Statistical Package for Social Science (SPSS). Various outputs were generated and printed from the Statistical Package for Social Science (SPSS) system including descriptive statistics, summary statistics, and inferential statistics and necessary print-outs made thereof. As the quantitative data were generated, the researcher deployed tools for handling numerical evidence in making decisions (Lapin, 1990).

As recommended by Franfort-Nachmias and Leon-Guerrero (2011), the researcher used descriptive statistics to summarise and present processed data. These included summary statistics such as mean, mode, coefficient of variation, variance, and standard deviation. Summarised data was presented in bar graphs, pie charts, frequency polygons and histograms (Lapin, 1990). These tools are critical as they give the general shape of the frequency distributions and thereby facilitate further analysis (Vernoy & Kyle, 2002). Advanced use was made of correlation and regression analyses to establish the relationships among the variables at the specified statistical significance as compared with practical or scientific significance (Shughnessy *et al.*, 2006).

In addition, the researcher employed the F-test in analysis of Variance (ANOVA) to countercheck model adequacy given that the population was classified by University category. To test hypotheses and make inferences, the study employed the various tools of Structural Equation Modelling (SEM) technique, particularly to examine the influence of the moderating variable and ‘effects’ of the intervening variable (Yee & Ali, 2011). A number of multiple regression and simultaneous equations were proposed and solved as detailed hereunder.

Objectives one and two in the study involved direct relationship between the independent and dependent variables. To determine the direct relationship between the direct relationship, the study utilised both correlation and regressions analyses. First the researcher established correlation among the variables, which usually takes the involves the formula:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}} \dots\dots\dots (4)$$

where,

r = regression coefficient

n = sample size;

X = independent variable, in this case HRSE and HRSC; and

Y = dependent variable.

The study deployed the following linear regression model for test of hypotheses one and two:

$$Y = \beta_0 + \beta_1 X + \varepsilon \dots\dots\dots (5)$$

where,

Y = the dependent variable;

X = independent variables, HRSE and HRSC;

β_0 = constant or intercept,

β_1 = coefficient of independent of the variable; and

ε = error or disturbance term.

The third and fourth objectives concerned mediation. Partial mediation for the single mediator variable was determined first on the basis of partial correlation analysis and then on the following simultaneous equations (Aguinis, Edwards & Bradley, 2016):

$$Y = i_1 + cX + \varepsilon_1 \dots\dots\dots(5)$$

$$Y = i_2 + c'X + b(M) + \varepsilon_2 \dots\dots(6)$$

$$M = i_3 + aX + \varepsilon_3 \dots\dots\dots(7)$$

where,

Y = dependent variable;

X = independent variable;

M = Mediator variable;

i_1, i_2, i_3 = constants in the equations; and

$\varepsilon_1, \varepsilon_2, \varepsilon_3$ = error terms.

The study's fifth and sixth objectives entailed moderation. To determine partial moderation, the general moderation regression model was proposed as follows (Fairchild & MacKinnon, 2009):

$$Y = \beta_0 + \beta_1X + \beta_2Z + \beta_3XZ + \varepsilon \dots(9)$$

where,

Y = dependent variable,

X = the independent variable;

Z = the moderator variable, which in this study is top management support;

β_0 = constant;

β_1 = coefficient of the independent variable;

β_2 = coefficient of the moderatin variable;

β_3 = coefficient of the interaction term;

ε = error term.

Before utilising the regression model output to test hypotheses, questions of model fitness or adequacy, multicollinearity, and heteroscedasticity were addressed.

3.8.2 Test of Model Fitness

For the models described above to yield the anticipated results, they had to fit the data the research collected. Fit means the ability of a model to reproduce the data (Kenny, 2020). It enables determination of the variance the model accounts for. Model fit suggests disparity between observed data and model-implied data (Stanley *et al.*, 2016), so that the smaller the discrepancy, the better the fit. In addition, fit implies the quality of the data is in synch with the underlying theory, the interface between the two being the research instrument. The questionnaire that harvested the data was constructed on the basis of the theoretical framework presented in this study.

The regression method dominated the analyses in this study. A well-fitting regression model yields predicted values that approximate the observed values of the data (Grace-Martin (2020)). In this technique, R-squared (coefficient of determination), adjusted R-squared, and the F-test can be useful measures of fit. The coefficient of determination partitioned the total variance into explained and unexplained (Georgiev, 2022). The difference suggested how far the fit went. Chico *et al.* (2021) defends R^2 , invented by Wright (1921), as an indicator of fit. According to Grace-Martin (2020), a significant F-test indicates that the observed R-squared is reliable, and is not merely a spurious result of oddities in the data set.

For the structural equations models involving mediation analyses, the study adopted the following the indices for establishing model fitness and their thresholds based on Hooper, Coughlan, and Mullen (2008): Goodness of Fit Index; Adjusted Goodness of Fit Index; Normed Fit Index and Comparative Fit Index derived from Adjusted Goodness of Fit Index and interpreted as such; the Root Mean Square Residual; the Root Mean Square Error of Approximation. Breakwell *et al.* (2006) recommend the need to report the whole range of the indices so as to comprehensively suggest fitness. Stone (2021) suggest the reprinting of a full

range to guard against misuse of the indices. Al Haderi and Rahim (2018), Verburg *et al.* (2017), and Orozco (2016) took a similar approach to establish model fitness.

3.8.3 Test of Normality

In sampling theory, two types of samples are identified in terms of size: small samples; and large samples. A sample of more than 30 elements is classified as a large sample. All such samples have distributions that approach the normal distribution (Speigel & Stephens, 1998; Lucey, 1996; & Webster, 1995). This study met that threshold. However, the researcher thought it needful to confirm normality, and, therefore, utilised the Kolmogorov-Smirnov and Shapiro Wilk tests, as recommended by Orozco (2016), for that purpose.

3.8.4 Multicollinearity

The researcher identified any presence of multicollinearity in a number of ways: by examining the correlation matrix of the data set to get a picture of how the two independent variables correlated; comparing the coefficient of determination between the dependent variable and each of the two independent variables, and by employing the Variance Inflation Factor (VIF) that assigns multicollinearity to each independent variable (Salvatore & Reagle, 2005). As a rule, $VIF=1$ where collinearity is absent and increases as multicollinearity becomes pronounced. Examining coefficient of determination indicated any duplication of any independent variable by the other.

3.8.6 Test of Hypotheses

The purpose of carrying out test of hypotheses was to allow the researcher to make some conclusions about the population under study from the results of the sample as suggested by

Frank and Althoen (1995). This study tested six (6) hypotheses, based on relationships among variables.

To test for the direct relationship between human resource strategy evaluation and performance, (H_{01}), the following simple linear regression analysis was modelled:

$$P = \beta_0 + \beta_1 HRSE + \varepsilon \dots\dots (11)$$

where,

P = performance, the dependent variable;

HRSE = human resource strategy evaluation, the independent variable;

β_0 = constant;

β_1 = regression coefficient of the independent variable; and

ε = error term.

The effect of human resource strategy evaluation on performance is given by β_1 HSRE. The effect is present only exist if that quantity is greater than zero. Thus, the researcher tested the hypothesis, $H_{01}: \beta_1 \neq 0$, for significance at $\alpha = 0.05$, using the t distribution with $n-2$ degrees of freedom. A practical p -value of less than the hypothesised alpha was indicative of a contradicted H_{01} , leading to its rejection and vice versa. Mediation was further confirmed using the Sobel test.

To test for the direct relationship between human resource strategy control and performance (H_{02}), the following simple linear regression analysis was performed:

$$P = \beta_0 + \beta_1 HRSC + \varepsilon \dots\dots (12)$$

where,

- P = performance, the dependent variable;
- HRSC = human resource strategy evaluation, the independent variable;
- β_0 = constant;
- β_1 = regression coefficient of the independent variable; and
- ε = error term.

The effect of human resource strategy control on performance was given by β_1 HRSC. The effect can only exist if that quantity is greater than zero. Thus, the researcher tested the hypothesis, $H_{02}: \beta_1 \neq 0$, for significance at $\alpha = 0.05$, using the t distribution with $n-2$ degrees of freedom. A practical p -value of less than the hypothesised alpha was indicative of a contradicted H_{02} , leading to its rejection and vice versa.

To test for the partial mediation of information characteristics (IC) on the relationship between human resource strategy evaluation and performance (H_{03}), analysis was carried out using the following mediation regression equations:

$$P = i_1 + c(\text{HRSE}) + \varepsilon \dots\dots(13)$$

$$P = i_2 + c'(\text{HRSE}) + b(\text{IC}) + \varepsilon \dots(14)$$

$$\text{IC} = i_3 + a\text{HRSE} + \varepsilon \dots(15)$$

where,

- P = performance, dependent variable;
- i_1, i_2, i_3 = constants in the three equations;
- HRSE = human resource strategy control, independent variable;
- IC = information characteristics, mediator variable;
- a = relationship between HRSE and IC;

- b = total effect of IC on P;
- c = total effect of HRSE on P;
- c' = direct relationship between HRSE and P, holding IC constant; and
- ε = error term in the three equations.

The researcher solved the equations simultaneously to provide the path coefficients between human resource strategy evaluation and information characteristics and between information characteristics and performance of the human resource strategy. The researcher then tested the product ab for correlation significance at $\alpha = 0.05$ using the Sobel test, a variant of t test given, according to Yay (2017), by the formula,

$$z = ab\sqrt{(b^2SE_a^2) + (a^2SE_b^2)} \dots\dots\dots (16)$$

A practical p -value of less than the hypothesised alpha will be indicative of a contradicted H_{03} , leading to its rejection and vice versa.

To test for the mediation of information characteristics (IC) on the relationship between human resource strategy control and performance (P), (H_{04}) analysis was performed using the following mediation regression equations:

$$P = i_1 + c(\text{HRSC}) + \varepsilon \dots\dots\dots(17)$$

$$P = i_2 + c'(\text{HRSC}) + b(\text{IC}) + \varepsilon \dots\dots(18)$$

$$\text{IC} = i_3 + a\text{HRSC} + \varepsilon \dots\dots(19)$$

where,

P = performance, dependent variable;

i_1, i_2, i_3 = constants in the three equations;

HRSC = human resource strategy control, independent variable;

IC = information characteristics, mediator variable;

a = relationship between HRSC and IC;

b = total effect of IC on P;

c = total effect of HRSC on P;

c' = direct relationship between HRSC and P, holding IC constant; and

ε = error term in the three equations.

The researcher solved the equations simultaneously to provide their path coefficients, between human resource strategy control and information characteristics and between information characteristics and performance. The researcher then tested the product ab for correlation significance at $\alpha = 0.05$ using the Sobel test indicated above. A practical p-value of less than the hypothesised alpha was indicative of a contradicted H_{04} , leading to its rejection and vice versa. To test for moderation of top management support on the relationship between human resource strategy evaluation and performance (H_{05}), the following moderated regression analysis was performed, for linearity:

$$P = \beta_0 + \beta_1 \text{HRSE} + \beta_2 \text{TMS} + \beta_3 (\text{HRSE})(\text{TMS}) + \varepsilon$$

where,

P = performance, dependent variable'

HRSE = human resource strategy evaluation, independent variable;

TMS = top management support, moderating variable;

β_0 = model constant;

- β_1 = model coefficient for simple effect;
- β_2 = model coefficient for the moderating variable;
- β_3 = model coefficient denoting the moderation effect of the interaction term; and
- ε = error term.

The effect of human resource strategy evaluation on performance in the presence on top management moderation is given by:

$$P = \beta_0 + \beta_1HRSE + \beta_2TMS + \varepsilon$$

The interaction effect between human resource strategy evaluation and top management support will be assessed by indicating that the effect of human resource strategy evaluation on performance is not zero, that is, top management support is not a complete moderator, the significance of β_3 , as well as the inequality of β_1 and β_3 . Thus, the researcher will test the hypothesis, $H_{05}: \beta_1 \neq \beta_3$. A practical p -value of less than the hypothesised alpha was indicative of a contradicted H_{05} , leading to its rejection and vice versa.

To test for the partial moderation of top management support on the relationship between human resource strategy control and performance (H_{06}), the following moderated analysis for linearity was performed:

$$P = \beta_0 + \beta_1HRSC + \beta_2TMS + \beta_3(HRSC)(TMS) + \varepsilon \dots\dots\dots(23)$$

where,

- P = performance, the dependent variable;
- HRSC = human resource strategy control, independent variable;
- TMS = top management support, moderating variable;

- β_0 = regression model constant;
- β_1 = model coefficient that denotes the simple effect;
- β_2 = model coefficient of the moderating variable
- β_3 = model coefficient that denotes the moderation effect of the interaction term; and
- ε = error term

The effect of human resource strategy control on performance in the presence of top management moderation is given by:

$$P = \beta_0 + \beta_1\text{HRSC} + \beta_2\text{TMS} + \varepsilon$$

The interaction effect between human resource strategy control and top management support was assessed by indicating that the effect of human resource strategy control on performance is not zero, an indication of absence of complete moderation, the significance of β_3 , and that the two coefficients (β_1 and β_3) are not equal. Thus, the researcher tested the hypothesis, H_{04} : $\beta_1 \neq \beta_3$. A practical p -value of less than the hypothesised alpha was presumed to be indicative of a contradicted H_{06} , leading to its rejection and vice versa.

3.9 Ethical Considerations

Right and wrong conduct is relevant to research as in all other fields of human endeavour. The study was carried out in compliance with ethical standards and the legal regulations governing the conduct of research in Kenya. The researcher obtained a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) and the Kabarak University research guidelines (Kabarak University, 2017).

The study ensured voluntary elicitation of data from the respondents. The researcher also ensured non-disclosure of individual and institutional identities, and gave the commitment

that findings would be used only for the intended purpose. The commitment was given both in the letter of introduction of the instrument as well as on the instrument itself. In addition, the researcher upheld the standards of academic inquiry and also ensured this applied to the research assistants as well.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This purpose of this study was twofold. First was to establish the relevance of the business strategy evaluation and control dimensions to human resource strategy evaluation and control. Secondly, to determine the relationship between human resource strategy evaluation and human resource strategy control on the performance of the human resource strategy. The research context was higher education subsector in Kenya.

Six specific objectives revolved around a direct relationship between human resource strategy evaluation and performance, a direct relationship between human resource strategy control and performance, mediation of information characteristics on the first objective, mediation of information characteristics on the second relationship, the moderation of top management support on the first relationship, and the moderation of top management support on the second relationship. In this chapter, the researcher presents and discusses the results of the study as follows: general and demographic information of the respondents; presentation of data and analysis; and interpretation of results and test of hypotheses.

4.2 General and Demographic Information

The research elicited information of general and demographic nature on the variables under investigation. These general and demographics findings are presented below.

4.2.1 General Information

General information pertained to the study's response rate and demographic data including gender, age, levels of education, work experience, and university category.

4.2.1.2 Response Rate

Response rate was high, in absolute and relative terms: 31 out of 34 respondents completed and returned the instruments. This constituted a 94/% response rate. The researcher wrote personalised letters in self-addressed stamped envelop to the vice chancellors of sampled institutions to seek permission to collect data. The researcher and four assistants then made follow-up through telephone calls and visits to the institutional heads and the actual respondents, the Registrar (administration). Smith *et al.* (2019) recommend personalising transmittal documents while Harrison (2020) found reminders useful.

High response rate is a measure of the success of a sample survey design by minimising non-response bias (Fosnacht *et al.*, 2013). Response rate by university category was as follows: chartered public university, 11; public university constituent college, 05; chartered private university, 06; private university constituent college, 02; and University with letter of Interim authority, 07.

4.2.2 Demographic Data

4.2.2.1 Distribution of the Respondents by Gender

Out of the 31 respondents, 12, 38.3%, were female and 19, 61.7% were male. The female gender still underperforms in representation at university management boards as indeed in many other sectors of the society. This statistic just fulfilled the two-thirds gender national policy that is intensely contested in Kenya (Equileap, 2019). Gender is a dimension of

diversity which like other diversity components brings benefits to organisations (Inegbedion *et al.*, 2020).

4.2.2.2 Distribution of the Respondents by Age

The researcher solicited information from respondents about age. Table 4 displays the distribution of age.

Table 4

Distribution of respondents by age

Age	Frequency	Percentage	Cumulative Frequency
26 – 35	04	12.90	12.90
36 – 45	06	19.40	32.30
46 – 55	17	54.80	87.10
56 – 65	04	12.90	100.00

Source: Research data

Age has implications on work experience, career growth and development, and seniority. 12% of the respondents fell in the 26-35 age bracket. In a study of top managers, Felicio (2013) identifies age among the key characteristics of managerial performance. According to conventional wisdom, sound judgement as that required for human resource strategy evaluation and human resource strategy control comes with maturity that is age-related. This is consistent with Birkinshaw *et al.* (2019) who argue that ‘while younger managers prefer narrower, more technical approaches, older ones tend to work through others and focus on the big picture’.

4.2.2.3 Distribution of the Respondents by Level of Education

The researcher sought information on the level of qualification of the respondents. The results are depicted in the Table 5 below.

Table 5

Distribution of Respondents by qualification

Qualification	Frequency	Percentage
Bachelors	05	16.10
PGD	01	03.20
Master's	12	38.70
PhD	13	41.93
Total	31	100.00

Source: Research data

Education is a determinant of managerial competence. Felicio (2013) notes a number of categories of this variable: basic education; high school; bachelor's degree; master's degree/postgraduate; and Doctor of Philosophy (PhD). Like Felicio (2013), the present study did not analyse the value of this variable. In a knowledge economy, though, the role of higher level qualifications need not be overemphasised.

4.2.2.4 Distribution of Respondents by Work Experience

The researcher also solicited information about respondents' experience in three aspects: work experience after highest qualification; experience prior to current position; and experience in the present position. As regards experience in the current position, 94% reported less than 10 years of experience; only 6% had more than 10 years of experience. Fifty-eight per cent (58%) had more than 10 years since attaining highest qualification; 42%

had less than 10 years. Finally, 61% of the respondents had more than 10 years' experience in previous positions prior to the current position, while 39% had less than 10 years.

Experience implicates job knowledge as well as understanding, necessary for strategy evaluation and control, which are largely subjective. It suggests whether or not respondents have lived through some strategic planning cycle in their own institutions. Mintzberg (1994) argues for the role of judgement and intuition in strategising, which apparently are more experiential than education-based.

4.2.2.5 Distribution of Respondents by University Category

The study categorised universities by categories borrowing from the Commission for University Education (CUE, 2017). The response for each category was as follows: University with Letter of Interim Authority, 7; Private Constituent College, 2; Public University Constituent College, 5; Private Chartered, 6; Public Chartered, 11.

4.2.4 Diagnostic Tests

In this study, the researcher measured the constructs by use of multi-item scales owing to the complexity of their nature. It was, therefore, vital to perform a number of diagnostics tests to establish the internal reliability and validity of the instrument (Taherdoost, 2016) as well as assure the presence of assumptions for various tools (Pearce & Derrick, 2019). The study carried out reliability and validity, normality, and multicollinearity tests.

4.2.4.1 Reliability

Table 4:3 indicates reliability results from the pilot study conducted to test the research questionnaire prior to the main survey. Table 6 below summarised the reliability statistics for the main variables of the study.

Table 6

Reliability Statistics

Variable	Reliability	Number of items
Human Resource Strategy Evaluation	.87	16
Human Resource Strategy Control	.89	14
Information Characteristics	.78	12
Top Management Support	.90	12
Human Resource Strategy Performance	.87	14

Source: Pilot study data

As Table 6 shows, the constructs had the following alpha values: Performance (14 items), .886; human resource strategy evaluation (16 items), .873; human resource strategy control (14), .889; information characteristics (12 items), .784; and top management support (12 items), .903. Each construct had Cronbach alpha (α) value above .70. These results proved that the instrument was internally consistent and reliable. These scores are consistent with Taber (2018), Kihara (2016), and Ch *et al.* (2016). Thus, the researcher retained all the the 68 items.

4.2.4.2 Validity

The study tested the instrument for content validity using the Lawshe's method (Lawshe, 1975, as cited by Ayre and Scally, 2013) as follows: $CVR = N_e - (N/2)/(N/2)$,

where,

CVR = content validity ratio;

N= the number of panel members; and

n_e = the number of panel members who consider the construct essential.

Six experts reviewed the constructs and all found the constructs essential ($CVR_{Critical} = 1.00$). Thus, the researcher retained the 68 items as accurately representing the phenomena under investigation. The result is consistent with Zamanzadeh *et al.* (2015) and Ayre and Scally (2013).

4.2.4.3 Tests of Assumptions

Test of statistical assumptions is meant to confirm the conditions upon which sampling techniques and population characteristics were based (Nimon, 2012). The study tested for normality, multicollinearity, and model fitness.

The researcher employed parametric analyses in this study, which rest on the assumption of normality, the notion that the data followed the Gaussian distribution, a continuous probability distribution that is asymmetrical on both sides of the mean (McLeod, 2019). Kolmogorov-Smirnov and Shapiro-Wilk tests are the two most common methods for test of normality (Mishra *et al.*, 2019). The decision rule in these tests is to reject the hypothesis of significance departure from normality where the K-S and W/S values are small with $p < 0.05$

(Verma & Abdel-Salam, 2019). The SPSS outputs the two tests together, which makes comparison easier. Table 7 presents a summary of the results.

Table 7

Test of Normality

Variable	Kolmogorov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Performance	.082	31	.200	.989	31	.976
HRSE	.119	31	.200	.969	31	.491
HRSC	.137	31	.144	.973	31	.603
IC	.116	31	.200	.971	31	.165
TMS	.089	31	.200	.975	31	.659

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

As the Table 7 indicates, both the Kolmogorov-Smirnov and the Shapiro-Wilk tests had small test statistics as well as p values greater than the hypothesised level of significance ($p\{0.976\} > 0.05$, $p\{0.491\} > 0.05$, $p\{0.603\} > 0.05$, $p\{0.165\} > 0.05$, and $p\{0.659\}$). K-S values were equally small and their significance levels above the hypothesised. The five variables, therefore, did not depart significantly from normality, which allowed the performance of various parametric tests. This is consistent with among others Verma and Abdel-Salam (2019), Ghasemi and Zahediasl (2012), and Romeu (2003).

This study additionally scrutinised the normality of the distribution of the variables further visually or graphically by examining the normal Q-Q plots. Figure 4.2 presents the Q-Q plot for performance of the human resource strategy.

Figure 2

The Q-Q Plot for the Performance of the human resource distribution

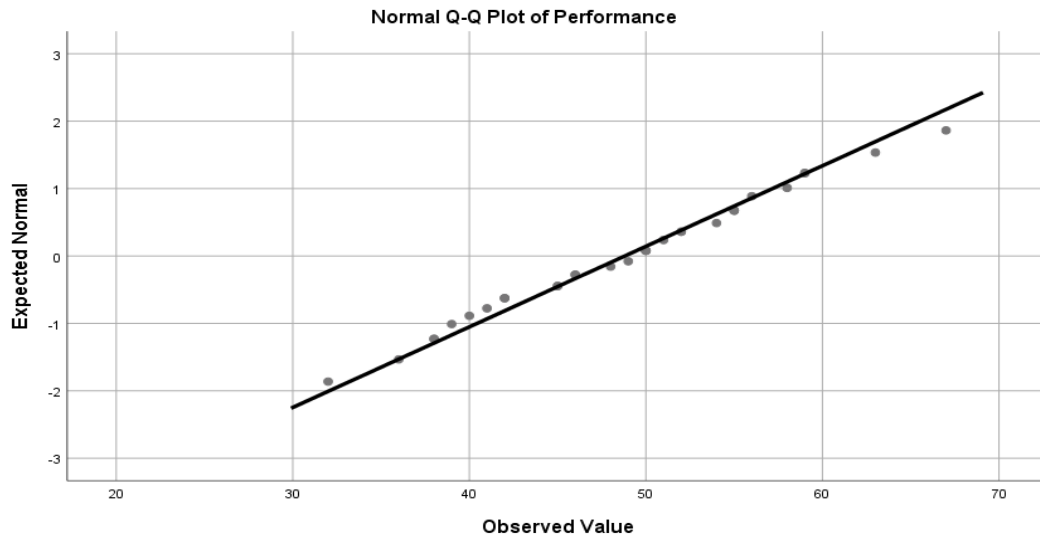
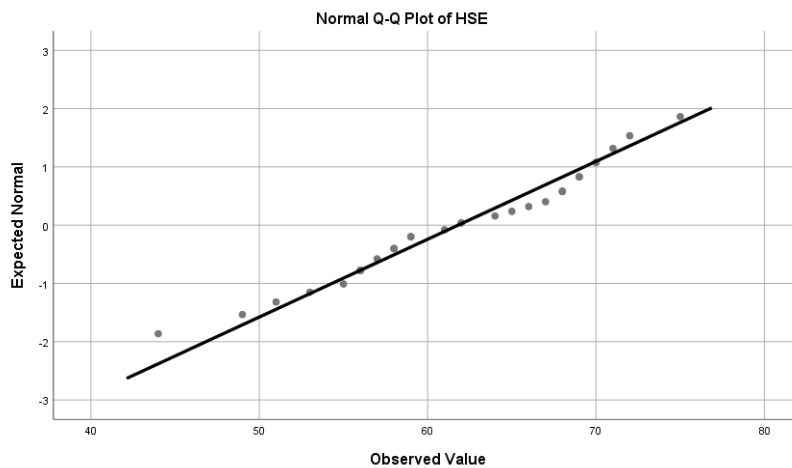


Figure 3 below presents the Q-Q plot for the human resource strategy evaluation variable.

Figure 3

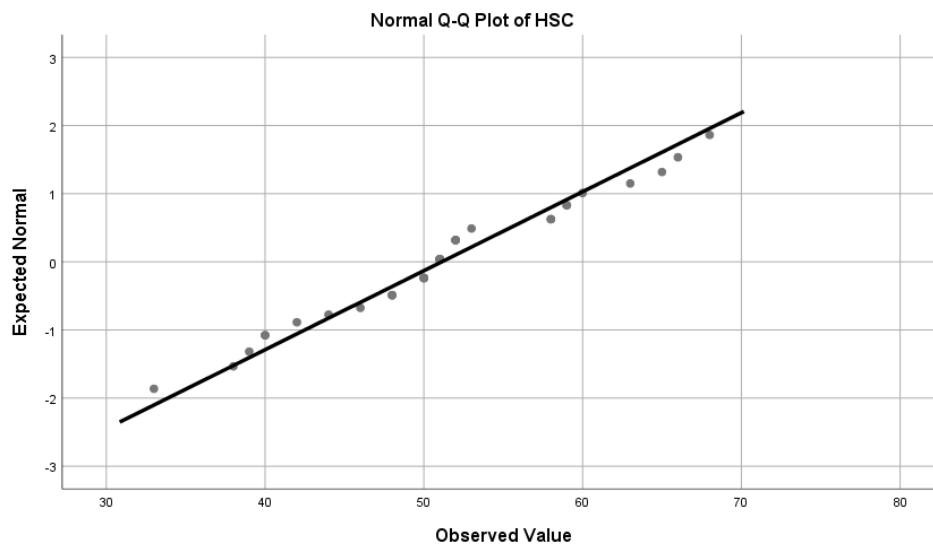
The Q-Q Plot for human resource strategy evaluation distribution



The study also sought to establish the normality of the human resource strategy control distribution. Figure 4 illustrates this finding.

Figure 4

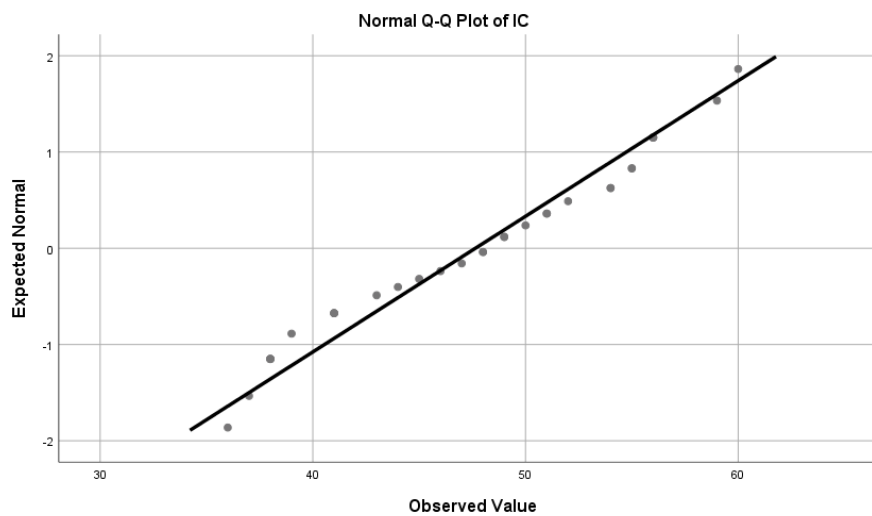
The Q-Q plot for the human resource strategy control variable



The study determined the normality of information characteristics. Figure 5 shows the distribution of this variable.

Figure 5

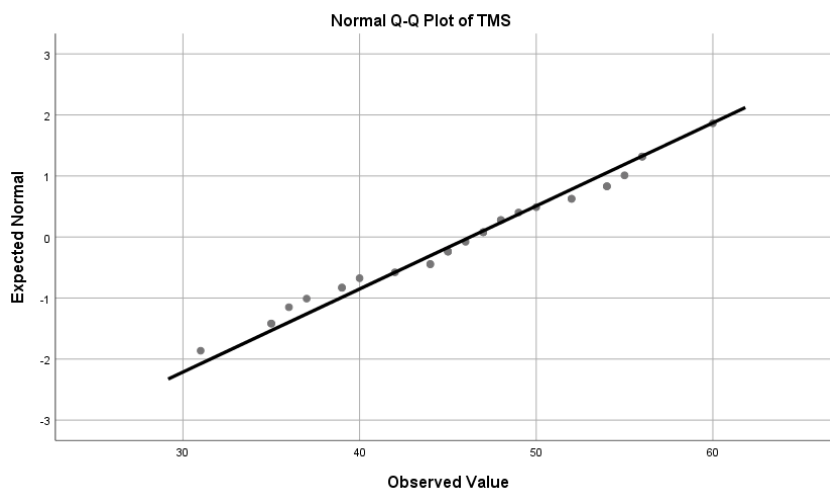
The Q-Q plot for information characteristics variable.



The study found out the normality of the top management support variable. Figure 6 shows the distribution of this variable.

Figure 6

The Q-Q Plot for top management support



The Q-Q plots in figures 2, 3, 4, 5, and 6 indicate that the residuals do not drastically deviate from the diagonal lines of the Q-Q Plot. Thus, consistent with Mishra *et al.* (2019), both the statistical/numerical (K-S and the W/S) tests and the graphic display affirm the normality of the data.

The assumption of multicollinearity assumption was relevant in the case of multiple regression analysis, a model with more than one independent variable (Daoud, 2017). Thus, this study did not consider the assumption in objectives one and two; in both had a single independent variable, human resource strategy evaluation and human resource strategy control respectively. However, it was relevant for objectives five and six, the moderating role of top management support on human resource strategy evaluation -performance and human

resource strategy control. The assumption applied to objectives five and six; in both, the moderator and the interaction term served as the second and third independent variable, raising the possibility of high correlation among the predictors. The models below associated with moderation analysis were tested for the incidence of multicollinearity:

$$P_1 = \beta_0 + \beta_1 \text{HRSE} + \beta_2 \text{TMS} + \varepsilon$$

$$P_2 = \beta_0 + \beta_1 \text{HRSE} + \beta_2 \text{TMS} + \beta_3 (\text{HRSE})(\text{TMS}) + \varepsilon$$

$$P_3 = \beta_0 + \beta_1 \text{HRSC} + \beta_2 \text{TMS} + \varepsilon$$

$$P_4 = \beta_0 + \beta_1 \text{HRSC} + \beta_2 \text{MS} + \beta_3 (\text{HRSC})(\text{TMS}) + \varepsilon$$

The first two moderation model sought to establish the extent of collinearity between human resource strategy evaluation, the moderating variable (top management support), and the interaction term (human resource strategy evaluation-top management support). Table 4.5 below indicates the diagnostic results.

Table 8

Collinearity diagnosis for first predictor, moderator, interaction term

Model	Unstandardised Coefficients	Std. Error	VIF
1 (Constant)	48.556	1.198	
Centre_HRSE	.214	.187	1.866
Centre_TMS	.720	.188	1.823
CentreHRSE_TMS	.006	.018	1.036

The second moderation model sought to establish the extent of collinearity between human resource strategy control, the moderating variable (top management support), and the interaction term (human resource strategy control- top management support). Table 9 below indicates the diagnostic results.

Table 9*Collinearity diagnosis for second predictor, moderator, and the interaction term*

Model		Unstandardised Coefficients	Std. Error	VIF
1	(Constant)	48.900	1.131	
	Centre_HRSC	.376	.155	1.996
	Centre_TMS	.554	.183	2.000
	Centre HRSC_TMS	-.001	.015	1.008

The values of the Variance Inflation Factor (VIF) in tables 8 and 9 fall below 10, an indication of absence of multicollinearity (Dormann, *et al.* 2013). This paved way for use of regression in the analysis of the research data.

In this study the researcher confirmed the models below for fitness using R^2 , R^2 -adjusted, and the F-test:

$$P_1 = \beta_0 + \beta_1 \text{HRSE} + \varepsilon$$

$$P_2 = \beta_0 + \beta_1 \text{HRSE} + \beta_2 \text{TMS} + \varepsilon$$

$$P_3 = \beta_0 + \beta_1 \text{HRSE} + \beta_2 \text{TMS} + \beta_3 \text{HRSE (TMS)} + \varepsilon$$

$$P_4 = \beta_0 + \beta_1 \text{HRSC} + \varepsilon$$

$$P_5 = \beta_0 + \beta_1 \text{HRSC} + \beta_2 \text{TMS} + \varepsilon$$

$$P_6 = \beta_0 + \beta_1 \text{HRSC} + \beta_2 \text{MS} + \beta_3 (\text{HRSC})(\text{TMS}) + \varepsilon$$

The results of the analysis are shown in Table 10 below:

Table 10: Model fit indices

Model	R	R ²	R ² Adjusted	F	Sig. F Change
P ₁	.608	.369	.347	16.975	0.000
P ₂	.772	.596	.567	20.615	0.000
P ₃	.773	.597	.552	13.339	0.000
P ₄	.730	.533	.517	33.103	0.000
P ₅	.808	.653	.628	26.308	0.000
P ₆	.808	.653	.614	16.915	0.000

As the table indicates, the the F statistic for all the models was significant indicating the suitability of R² as a measure of fit. This is consistent with Chicco *et al.* (2021), Grace-Martin (2020), and Frost (2018). Chicco *et al.* (2021) defends the strength of the coefficient of determination compared to other fit indices: ‘we therefore suggest the usage of R-squared as standard metric to evaluate regression analyses in any scientific domain’. Grace-Martin (2020) has observed that a significant F-test indicates the observed ‘R-squared is reliable, and is not merely a spurious result of oddities in the data set’. And Frost (2018) asserts: R-squared is a goodness-of-fit measure for linear regression models.

In relation to structural equation modeling related fit indices, the study found that the following did not closely fit: Relative X²; Root Mean Square Residual; Comparative Fit Index; Adjusted Goodness of Fit; Root Mean Square Error of Approximation; and Tucker and Lewis. This, however, was not a threat to the study as, according to Kenny (2020), lower samples can be used where model has not latent variables and have strong correlations. This was the case with the two models in this study. Fan *et al.* (2016). Also argue against unnecessary concern for lack of fit of the chi-square goodness of fit index.

4.3 Data Presentation

The researcher collected data on six objectives containing variables as follows: human resource strategy evaluation and performance, a direct relationship; human resource strategy control and performance, a direct relationship; human resource strategy evaluation and performance, a mediated relationship with information characteristics; human resource strategy control and performance, a mediated relationship with information characteristics; human resource strategy control and performance, a moderated relationship with top management support; and human resource strategy control and performance, a moderated relationship with top management support.

The analysis involved use of descriptive and inferential statistics. Tables of summary statistics, including means (\bar{x}), and standard deviations (s), as well as the coefficient of variation (CV) are indicated. Inferential statistics among them correlation and regression analyses, analysis of variance (ANOVA), and structural equations (SEM) were employed in the test of hypotheses. The researcher has presented and analysed data objective by objective as the following sections show.

4.3.1 Findings for Objective One

The first objective of this study sought to determine the relationship between the utilisation of human resource strategy evaluation and performance of the human resource strategy in universities in Kenya.

4.3.1.1 Performance of the Human Resource Strategy

The study adopted the three dimensions to reflect and capture the full complexity of the concept of performance in an organisation.

The sampled 31 respondents were asked to rate the level of performance of indicators of each dimension in their institution. The respondents rated their effectiveness of each indicator on a five-point Likert scale ranging from 1 to 5, where 1 meant strongly disagree (SD), 2 was disagree (D), 3 indicated uncertain (U), 4 was agree (A) and 5 meant strongly agree (SA). The higher the score, the higher was the level of performance of the indicator in their institution, and vice versa. The measurement of each dimension of performance in an organisation is discussed below.

In this study, three indicators were used to measure performance efficiency. The indicators generally capture the following aspects of the dimension: human resource operations efficiency; financial efficiency; and process optimisation. Each indicator of efficiency was presented in a statement form. The respondents rated the performance of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 11 depicts the distribution of the rating of the indicators of performance efficiency.

Table 11

Rating of Performance Efficiency

Indicator	M	SD	CV
Available data indicate favourable cost per unit measure of all HR activities	3.45	1.09	31.6%
Revenue consciousness is high among HR staff	3.35	1.08	33.3%
Adoption of ICT has reduced need for more HR specialist staff	3.03	1.01	33.5%

Source: research data

Key: M = Mean; SD = Standard Deviation; CV = Coefficient of Variation.

Table 11 shows how the respondents rated the three indicators of performance efficiency; the mean scores ranging from $\bar{x}_1 = 3.03$ ($S_1 = 1.02$) to $\bar{x}_3 = 3.45$ ($S_3 = 1.09$). Respondents rated highest the indicator ‘The institution is on course for achieving paperless HR through e-HR’, $\bar{x}_1 = 3.03$ ($S_1 = 1.02$) with a moderate coefficient of variation, 31.62%. Next was the indicator ‘Available data indicates show favourable cost per unit measure of all HR activities’, $\bar{x}_2 = 3.35$ ($S_2 = 1.08$) with a moderate coefficient of variation, 33.30%. And last was the indicator ‘Adoption of ICT has reduced need for more HR specialist staff’, $\bar{x}_1 = 3.03$ ($S_1 = 1.02$) with a moderate coefficient of variation, 33.53%.

The above average mean scores as well as the moderate variations indicate agreement among respondents with the indicators as measures of the performance efficiency of the human resource function in universities. This is vital for theory development in human resource management which is grappling with issues of valuation of people resources in organisations (Mello, 2011). According to HR Magazine (2018), operational efficiency is a pillar of strategic human resource management alongside strategic human resource and personal development.

The individual indicator scores were summed up to form a composite index score, known as the performance efficiency index score which summarised all the three indicators into a single numeric value for each respondent. The index score varied from 3, indicating very low performance to 15 indicating very high-performance efficiency. The higher the score, the higher was the level of performance efficiency, and vice versa. The composite index score had a mean score of $\bar{x} = 9.84$ and a standard deviation of $s = 1.791$. The index score was collapsed into three ordinal categories including a score of 3-6 (low performance), a score of

7-11 (moderate performance) and a score of 12-15 (high performance). Table 12 summarises the level of performance efficiency in an organisation.

Table 12

Levels of Performance Efficiency

Level of Utilisation	Frequency	Percentage
Low	02	6.5
Moderate	25	80.6
High	04	12.9
Total	31	100

Source: Research data

Table 12 indicates that 80.6% of the respondents indicated moderate performance efficiency, 12.9% indicated high performance, and 6.5 percent reported low performance efficiency. This suggests that efficiency consciousness is moderate to high within human resource functions in the higher education institutions in Kenya. Universities are economic units and to that extent should be efficient. The general rising costs of operations occasion relentless budget cuts, hence the emergence of new paradigms such as the differentiated unit cost (DUC) in public universities in Kenya.

This finding is consistent with Boudreau and Lawler (2016), Morin and Audebrand (2014), Abdulkareem *et al.* (2011), Organisation for Economic Co-operation and Development (OECD) (2005), Antia and Cuthbert (1976), and Egler (2007). According to OECD (2005), Ball and Halwachi (1987), financial pressure, decentralisation, and demands for accountability exert pressure on higher education institutions human resource management. Abdulkareem *et al.* (2011) found student: teacher ratio a factor of internal efficiency in the

humanities disciplines in Nigerian universities concluding that over-utilisation of lecturers a source of risk.

Antia and Cuthbert (1976, as cited by Ashraf and Kadir, 2012)'s model of effectiveness includes cost-effectiveness. Morin and Audebrand (2014) measured efficiency as resource economy, productivity, and general profitability. Egler, (2007) found cost reduction a measure of performance level, a measure Boudreau and Lawler (2016) agree with. There is a push towards Differentiated Unit Cost (DUC) wherein government funding is contingent on the annual cost of providing a degree programme per student (RoK, March 2012).

But efficiency measures are not amenable to the university (Kupriyanova *et al.*, 2018; Amaeshi, 2013). Kupriyanova *et al.* (2018) argue there are limits to replicability, transferability and measurability of efficiency measures to universities. Amaeshi (2013) finds that human resource efficiency focusses less on bottom-line performance indicators such as profitability, return on investment, return on equity than on intermediary performance indicators. Private universities, though, run on their own (although they have begun to to admit government-sponsored students, thereby introducing a new category of stakeholders). Efficiency discourse, thus, appears less threatening to private universities compared to public ones.

Conceptually, one could arrive at an efficiency measure by dividing the total human resource annual budget with the total number of employees in terms of the three maor human resource management activities of acquisition of, maintenance of, and separation with people in organisations. Efficiency measures need to indicate per employee cost of Acquisition, maintenance, and separation. It is both a challenge and a rarity in the literature.

In relation to human resource, effectiveness pertains to the outcomes human resource activities engender (NonprofitHR, 2020) in terms of acquisition, maintenance of people, and separation with people. Morin and Audebrand (2014) consider it a problematic concept. A broader term than efficiency (Bartuseviciene & Sakalyte, 2013), is the extent to which entities attain set targets (Jones & George, 2006). Effectiveness which is goal-based, means ‘doing the right thing’, assuming goals identify the right things! Although universities are highly formal with defined goals, what constitutes the right things is contested. The university pursues goals around teaching, research, and service. Hopefully, the human resource objectives cascade from institutional goals.

In this study, seven indicators were used to measure performance effectiveness. The seven indicators generally capture the following aspects of the dimension: performance appraisal; human resource’s role in change; stakeholder concerns; satisfaction with human resource services; overall performance management; devolution of human resource to the line; and inclusivity. Each indicator of performance effectiveness was presented in a statement form. The respondents rated the performance of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 13 depicts the distribution of the rating of the indicators of performance effectiveness.

Table 13*Rating of Indicators of Performance Effectiveness*

Indicator	M	SD	CV
Role of HR in setting up and review of performance assessment is recognized by all	3.84	0.97	25.2%
Executives and HoDs recognize the change leadership role in HR	3.68	1.08	29.3%
Assessments show stakeholders accept audit results and rankings in the world	3.58	0.87	24.8%
Evaluations show executive and employee satisfaction with HR services	3.52	1.21	34.3%
Assessments indicates HoDs have assumed significant responsibility for HR matters	3.39	0.88	26.0%
Continuous HR performance reviews have replaced periodic appraisal	3.19	1.25	39.2 %
Reviews indicate stakeholders are not critical of the institution on inclusivity issues	3.03	0.95	31.29%

Source: Research data

Table 13 shows how the respondents rated the seven indicators of performance effectiveness. The mean scores ranged from $\bar{x}_1 = 3.03$ ($S_1 = 0.95$) to $\bar{x}_7 = 3.84$ ($S_7 = 0.97$). Top-rated was that ‘Executives and HoDs recognise the change leadership role in HR’, $\bar{x}_7 = 3.84$ ($S_7 = 0.97$) with a coefficient of variation of 25.23%. It was followed by ‘Executives and HoDs recognize the change leadership role in HR’, $\bar{x}_6 = 3.68$ ($S_6 = 1.08$) with a coefficient of variation of 29.27%. The respondents rated ‘Assessments show stakeholders accept audit results and rankings in the world’ third, $\bar{x}_5 = 3.58$ ($S_5 = 0.87$) with a coefficient of variation of 24.75%. Fourth was the indicator ‘Evaluations show executive and employee satisfaction with HR services’, $\bar{x}_4 = 3.52$ ($S_4 = 1.21$) with a coefficient of variation of 34.32%.

The indicator ‘Assessments indicate HoDs have assumed significant responsibility for HR matters’ was rated fifth, $\bar{x}_2 = 3.39$ ($S_3 = 0.88$) with a coefficient of variation of 26.02%. The indicator ‘Continuous HR performance reviews have replaced periodic appraisal’ was rated sixth, $\bar{x}_2 = 3.19$ ($S_2 = 1.29$) with a coefficient of variation of 39.18 %. Respondents rated last the indicator ‘Reviews indicate stakeholders are not critical of the institution on inclusivity issues’, $\bar{x}_1 = 3.03$ ($S_1 = 0.95$) with a coefficient of variation of 31.29%.

The above average mean scores and low-to-moderate variability indicate a fair agreement among respondents with the indicators as measures of performance effectiveness in universities in Kenya. Of the selected effectiveness indicators presented, respondents still consider performance appraisal top. That would mean ‘internal customer’ to human resource still sees the function from the traditional or technical human resource management perspective. According to Waterman *et al.* (1980), organisational structural elements do not get replaced when new ones emerge; instead, they get embedded. The relatively low rating of the three bottom indicators betrays any pretensions human resource may have to being strategic. Devolving some human resource responsibility to the line (HR Magazine, 2018), institution of performance management systems beyond annual appraisals, and workforce diversity and inclusivity considerations exert enormous pressure on to human resource to focus beyond operational domains.

These indices are implied in the common university goals that drive human resource management: teaching; research; and service. Holten-Andersen (2015) outlines five goals of the contemporary university: one, repository of knowledge; two, generation of new knowledge; three, transfer of knowledge to the next generation (education); four, transferring of knowledge to society (dissemination); and five, generating economic development.

The fifth goal is the genesis and intensification of the controversy with stakeholders, particularly government. Perrow (1968, as cited by Rogers and Wright, 1998), too, agree that effectiveness means the achievement of objectives; a goal-oriented view as opposed to a natural systems measure. In a personal communication, Gichaga (1996), then a vice chancellor, declared: in the university, we measure success based on graduations and not on the basis of finance. Thus, completion rates as well as time to degree are vital key performance indicators.

Camillieri and Camillieri (2018) have weighed in on higher education institutions quantitative performance measures: enrolment ratios of students; graduate rates; student drop-out rates; continuation of studies at the next academic level; and employability index of graduates. For departments: progress on planned goals, objectives, and initiatives; tracking of changes in departmental size; age and distribution of employees; evaluation of department's strategic priorities; diversity of students and staff; discipline-specific ranking; regular programme reviews; research output; and determination of expenditure per member of staff.

The individual indicator scores were summed up to form a composite index score, known as the performance effectiveness index score which summarised all the seven indicators into a single numeric value for each respondent. The index score varied from 7, indicating very low performance to 35, indicating very high performance effectiveness. The higher the score, the higher was the level of performance effectiveness, and vice versa. The composite index score had a mean score of $\bar{x} = 24.23$ and a standard deviation of $s = 4.924$. The index score was collapsed into three ordinal categories including a score of 7-16 (low performance), a score of 17-25 (moderate performance) and a score of 26-35 (high performance). Table 14 summarises the level of performance effectiveness in an organisation.

Table 14*Level of performance effectiveness*

Level of Utilisation	Frequency	Percentage
Low	01	3.2
Moderate	15	48.4
High	15	48.4
Total	31	100

Source: Research data

The composite index scores in Table 14 indicate that 15 respondents (48.4%) reported high performance effectiveness, another 15 (48.4%) indicated moderate performance; and only one (1) or 3.2%, had low performance. This suggests a fairly high level of awareness among universities human resource about the concept of performance effectiveness. The drivers of performance effectiveness consciousness could be the demands for accountability that have grown in the recent past arguably due to performance contracting that was widely publicised in Kenya in the first decade of this millennium (Cheche & Muathe 2014; Letangule & Letting, 2012) as well as the relentless pressure institutions continue to be subjected to by the forces of change (Babalola & Taiwo, 2016).

The relatively high rating of the performance effectiveness for human resource in academia should be promising to adherents of the human resource management philosophy, notably of the ‘soft’ version. Universities are labour intensive; their success depends how perform tasks related to institutional aims. According to the Harvard Model of human resource management, an effective human resource policy environment leads to Commitment, Competence, Congruence, and Cost effectiveness (4Cs) that in turn lead to long-term consequences (Beer *et al.*, 1984 as cited by Paauwe & Boon, 2009).

Benefits of a good human resource management framework then accrue to all stakeholders: shareholders; management; employees; government; and unions (Beer *et al.*, 1984 as cited by Paauwe & Boon, 2009). Thus, Vermeeren *et al.* (2014), in a survey of 162 health care organisations in the Netherlands, found a link between human resource management and performance in healthcare. They concluded that human resource management makes a difference for human resource and organisational outcomes. But there are challenges to the success of human resource management at universities. Just as managerialism can be toxic, so is the anti-managerial attitude that pervades the institutions (HR Magazine, 2018).

And the unawareness of human resource about how academia works partly exacerbates the problem. Strategic human resource management rarely gets embraced in its totality. In their study, Kiplangat *et al.* (2016), reporting a deputy vice-chancellor's personal communication, found that universities dealt with unions more reactively than proactively, suggesting absence of human resource strategy or its neglect. Mello (2011) observes that measuring human resource assets is intractable; yet only through measurement can it be established with any degree of certainty that it is contributory. Lawler III (2014) asserts that human resource is still more administration-focussed (technical human resource) than strategic, pointing out less time spent on strategic issues as proof.

Vermeeren *et al.* (2014), in a survey of 162 health care organisations in the Netherlands found human resource's impact on financial performance is less strong. Impact denotes the business or strategic value that human resource activities create. Really impactful human resource programmes are long-term. Indeed, traditional employment relationships were naturally long-term. The frustration of policy makers with universities revolves around this point; the former being fixated on quick gains. But even shareholders are fixated on the short-term as are employees. Impact in this study concerned human resource outcomes that focus on overall organisation performance as well as

on societal objectives and employee long-term well-being, by among other means, quality goods and services, and the development of human capital. In other words, efficiency and effectiveness are not to be pursued for their own sake. Kramar (2014) conceptualises this thinking as Sustainable Strategic Human Resource Management.

In this study, four indicators were used to measure impact as a dimension of performance of the human resource strategy in universities. The four indicators generally captured the following aspects of the impact dimension: institutional linkages; human capital; and student outcomes; information communication technology use. Each indicator of performance impact was presented in a statement form. The respondents rated the performance of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 15 displays the distribution of the rating of indicators of impact performance.

Table 15

Rating of indicators of performance effectiveness

Indicator	M	SD	CV
HR is cognisant of need for linkages with industry, government, society and institutions	4.16	0.78	18.7%
The human capital concept is understood and used in monitoring and reporting	3.68	0.83	22.6%
There are indications that HR is conversant with and recognizes key student outcomes	3.52	1.18	33.5%
Increased ICT use allows HR to focus more on strategic than operational issues	3.39	1.05	31.1%

Source: Research data

Table 15 shows how the respondents rated the all the four indicators of performance impact. The mean scores ranged from $\bar{x}_1 = 3.39$ ($S_1 = 1.05$) to $\bar{x}_4 = 4.16$ ($S_4 = 0.78$).

They rated top the indicator ‘HR is cognisant of need for linkages with industry, government, society and institutions’, $\bar{x}_4 = 4.16$ ($S_4 = 0.78$) with a coefficient of variation of 18.73%. Next was the indicator ‘There are indications that HR is conversant with and recognises key student outcomes’, $\bar{x}_3 = 3.68$ ($S_3 = 0.83$) with a coefficient of variation of 22.61%. Third was the indicator ‘The human capital concept is understood and used in monitoring and reporting’, $\bar{x}_2 = 3.52$ ($S_2 = 1.18$) with a coefficient of variation of 33.52%. Finally, respondents rated last the indicator ‘Increased ICT use allows HR to focus more on strategic than operational issues’, $\bar{x}_1 = 3.39$ ($S_1 = 1.05$) with a coefficient of variation of 31.09%. The above average means and the moderate variability imply not only agreement among respondents on the indicators as measures of impact as a quality of performance but also that human resource has an outward focus.

The respondents rated linkages top indicating their consciousness with this factor. Human resource is at the heart of linkages by the fact that linkages are driven by the skill, attitude, and reputation of entrepreneurial academics. Under pressure to innovate, the profiles of scientists germane to fostering linkages must preoccupy human resource management at universities. This finding is consistent with Rybnicek and Königsguber (2019), Filippetti and Savona (2017), Stal and Fujino (2016), and (Giuliani *et al.*, 2010).

According to Stal and Fujino (2016) linkages that drive collaborations and innovations are aspects of performance. Rybnicek and Königsguber (2019) found staff and structure as drivers of IUCs that then spur innovation and commercialisation of academic knowledge.

But they also add that the bureaucratic nature of universities is a hindrance.

Filippetti and Savna (2017) found individual characteristics as a factor of University-Industry linkage. Giuliani *et al.* (2010) named those individual researcher factors as demographic, educational, and reputational. Respondents also rated way above average use of the human capital concept. Use of this concept rather than just human resource appears to raise the profile of people in organisations. This then justifies human resource development as an investment since human resource constitutes the economic value of the abilities and qualities of people.

This finding is consistent with Amadeo *et al* (2022), Bruce-Lockhart (2016), Jain and Ohri (2020), Drábek *et al.* (2017). Human capital, for example education and health, causes greater output for the economy and greater income for the individual (Amadeo *et al.*, 2022). Drábek *et al.* (2017) argue to increased investment in human capital. According to Jain and Ohri (2020), human capital leads to inventions, innovations and technological improvement, higher productivity of physical capital, raises production, high rate of participation and equality, and improves the quality of life. But critics aver human capital takes long to build, is inseparable from employees and is subject to individual idiosyncrasies and predispositions.

Bruce-Lockhart (2016) avers the human capital concept minimises people's abilities, reducing them to mere economic quantities. Respondents also rate above average concerns for student outcomes. Faculty and staff behavior that implicate student outcomes include motivation, commitment, absenteeism, professional (mis)conduct, industrial action, and turnover. Student outcomes are, thus, are relevant to human resource. This finding is consistent with Camillieri and Camillieri (2018), (Omanga, 2017), Khurshid (2014), and Youssef and Dahmani (2008). Camillieri and Camillieri (2018) found performance to include graduation rates, proceeding to the next level, and employability.

Khurshid (2014) found responsive professional faculty, instructor motivation, and management practices impacting student outcomes. The case of missing marks widely reported in universities in Kenya is a case in point (Omanga, 2017). Youssef and Dahmani (2008) find instructor characteristics as one of the standard explanatory factors in student outcomes.

Respondents also rated above average information communication technology utilisation vis-à-vis strategic time, an indication of uptake of technology-enabled information management. This was reinforced by the disruptive incidence of COVID 19 that necessitated remote work. This is consistent with Basri *et al.* (2018), Lawler III (2016), Midiwo (2015), Ukandu *et al.* (2014), Rastrick and Corner (2010). Lawler III, found ICT use yields immediate gains in terms of speed, timeliness, accuracy, and cost. According to Ukandu *et al.* (2014), eHRM was appreciated for its efficiency despite challenges. Midiwo (2015) reported significant use of e-recruiting, e-training, and e-payroll in universities in Kenya.

Rastrick and Corner (2010) found information communication technology a source of competitive advantage when it is integrated with other resources and capabilities. Basri *et al.* (2018) found increased use of information communication technology among students. But current COVID 19 pandemic underscores the weaknesses of university information communication technology systems. But Midiwo (2015) found lack of optimization of e-human resource management in universities in Kenya.

The individual indicator scores were summed up to form a composite index score, known as the performance impact index score which summarised all the four indicators into a single numeric value for each respondent.

The index score varied from 4, indicating very low performance to 20, indicating very high-performance impact. The higher the score, the higher was the level of performance impact, and vice versa. The composite index score had a mean score of $\bar{x} = 14.74$ and a standard deviation of $s = 2.695$. The index score was collapsed into three ordinal categories including a score of 4-9 (low performance), a score of 10-14 (moderate performance) and a score of 15-20 (high performance). Table 16 summarises the level of performance impact in an organisation.

Table 16

Levels of Performance Impact

Level of Utilisation	Frequency	Percentage
Low	01	3.2
Moderate	12	38.7
High	18	58.1
Total	31	100

Source: Research data

Table 16 indicates that 18 respondents, 58.1%, rated performance impact as high, 12 or 38.7%t rated Performance impact as moderate, and one respondent, 3.2%, rated performance impact as low. This suggests that the human resource function in the Higher education institutions surveyed had a broader understanding of the role of human resource in relation to institutional and societal objectives. It reflects increasing awareness of pressures the environment in which higher education human resource management is embedded generates.

Aside from performance as the sustainable competitive advantage (Almada & Borges, 2018; Marcus, 2005) and corporate longevity (Digman, 2003) of entities, Kramar (2014) has referred to numerous authors (Ehnert 2006, 2009, 2011; Docherty, Forslin, Shani & Kira

2002; Marriappanadar, 2003, 2012; Dunphy et al. 2007; Avery 2005; Avery & Bergsteiner 2010) who have noted the increasing concern of human resource management's impact on externalities. These include the environment as well as the social and human aspects of society.

The finding that human resource management at universities has an eye on sustainable competitive advantage and externalities is consistent with Santana *et al.* (2020), Hamadamin and Atan (2019), Guerci *et al.* (2016), Uddin and Islam (2015), Midiwo (2015), Kramar (2014), (Mello, 2011), and Aswathapa (2008) among others. Santana *et al.* (2020) sought to establish a link between human resource management and corporate social responsibility. For Hamadamin and Atan (2019) strategic human resource management has a role in sustainable competitive advantage, achievable, according to Mello (2011), by taking an investment view of the people function. Uddin and Islam (2015) sought to link human resource management to environmental sustainability through green human resource management, attainable, presumably through paperless human resource management (Midiwo, 2015).

These arguments are consistent with the classification of human resource management objectives as personal, functional, organisational and societal (Aswathapa, 2008). Human resource outcomes could also be classified as such. Affirmative action and equal employment opportunity policies are a response to societal demands. Thus, Beer *et al.*, (1984, as cited by Kramar, 2014), found central to the labour process, societal well-being.

But the impact of human resource strategy is contested, for example Chaudhari (2019), Boada-Cuerva *et al.* (2019), van Mierlo *et al.* (2018), Cushen and Harney (2015), Angrave *et*

al. (2016), and Aswathappa (2008), among others. Chaudhari (2019) reported that Higher education institutions show weaknesses in their own human resource despite that they train for others, adding that budgetary constraints are pronounced. van Mierlo *et al.* (2018) found the human resource process subject to competing interests causing setbacks. According to Angrave *et al.* (2016), the weakness in human resource was in deficient adoption of analytics technology and big data. Cushen and Harney (2015) found that strategic human resource management had promised less than it delivered.

Faculty, the dominant actors in academia, contribute to human resource challenges: their resistance to change; and aversion to being told what to do by human resource not as ‘highly educated’ as themselves (Fowler, 2020). Human resource management has not sufficiently matured as traces of industrial relations persist (Aswathappa, 2008), hence the presence of a number of strong unions, so that every major decision is subject to negotiation. Generally, top management support is inadequate (Boada-Cuerva *et al.*, 2019).

The study established overall performance of human resource strategy. The response to each constituent indicator of each dimension of human resource strategy evaluation was scored on a scale of 1, indicating very low performance, to 5, indicating very high performance. Since performance is a complex and multi-dimensional concept captured by the three dimensions with a total of 14 indicators, it was measured by a composite index score, known as performance index score. The individual scores of the 14 indicators of the three dimensions for each respondent were summed up to form an overall performance index score for each respondent (reliability coefficient, $\alpha = .886$). The overall index score varied from 14, indicating very low performance, to 70, indicating very high performance. The higher the score, the higher was the overall level of performance in an organisation, and vice versa.

The index score had a mean score of $\bar{x} = 48.81$ and a standard deviation of $s = 8.368$. The score was later contracted into three ordinal categories so as to make a distinction between the levels of performance among the sampled respondents. The levels included a score of 14-32 (low performance), a score of 33-51 (moderate performance) and a score of 52-70 (high performance). Table 17 summarises the overall levels of performance in an organisation.

Table 17

Overall levels of performance of human resource strategy

Overall Level of Utilisation	Frequency	Percentage
Low	01	3.2
Moderate	18	58.1
High	12	38.7
Total	31	100

Source: Research data

Overall performance involved combined measures of efficiency, effectiveness, and impact of the human resource strategy. Table 17 indicates that 58.1% (18) of the respondents rated performance as moderate, 38.7% (12) as high, and 3.2% had low overall performance rating. This suggests that the overall utilisation of human resource strategy is in universities in Kenya is moderate to high, though moderate is the modal rating. Universities are labour-intensive; it is thus expected that people issues will take centre-stage. It can also be inferred that human resource strategy will be at the heart of strategic plans, even if it is not thus named. The ordinal rating scales is also consistent with other HR performance ratings such as "acceptable," "effective" and "very effective" (SHRM, 2020). Amaeshi (2013), however, decries too much emphasis on intermediary rather bottom-line performance indicators.

This operationalisation of performance adopted in this study is consistent with Morin and Audebrand (2014) and Boudreau and Lawler (2016). Morin and Audebrand (2014) operationalised performance as systemic, social, technical, and ecological. Boudreau and Lawler (2016) operationalised human resource effectiveness in terms of human resource services, corporate services, and business strategy. The study examined each of these dimensions separately and cumulatively. Each dimension had a number of indicators capturing its various aspects. This is consistent with Boudreau and Lawler (2016)'s model for capturing the contribution of human resource to organisational effectiveness and performance: human resource services (four measures); corporate roles (four measures); and business strategy (four measures).

This overall performance finding is consistent with Allui and Sahni (2016), Muraga (2015), Bodor (2014), Ayanda and Sani (2011). Allui and Sahni (2016)'s study reported a strong level of awareness of strategic human resource management among Saudi Higher education institutions. Muraga (2015) found a direct effect of strategic human resource management practices on performance of parastatals in Kenya. Bodor (2014) found the presence of modern human resource management in Hungarian universities. In Ayanda and Sani (2011)'s study, human resource management was found to be moderately integrated into the strategy and operations of higher education institutions in Nigeria.

4.3.1.2 Utilisation of Human Resource Strategy Evaluation

To conduct successful evaluation requires elicitation and uptake of data and information about the evaluand. This is the purpose of strategy evaluation from which this study cascades the human resource evaluation. Evaluation at the level of strategy is a complex and multi-dimensional concept.

The literature review indicates the strategy evaluation concept revolves around four key principles that test a given strategy's validity and workability. These are Consistency, Consonance, Advantage, and Feasibility (Rumelt, 1979 as cited by Ungerer & Cayzer, 2016; David, 2013). While Rumelt proposed these principles for use in the evaluation of business strategy and Tilles (1963) suggested some for corporate strategy, the present study adopted the four dimensions to reflect and capture the full complexity of the concept of human resource strategy evaluation given that human resource strategy cascades from and drives business strategy.

The study examined each of the four dimensions separately and then cumulatively. The dimensions varied in the number of indicators: Consistency with four; Consonance, five; Advantage, three; and Feasibility had four. The researcher converted the indicators for each dimension into a set of generic statements to capture human resource strategy evaluation from 31 respondents.

The investigator asked the 31 respondents in the study sample to rate the level of utilisation or presence of the indicators for each dimension in their institutions on a five-point Likert scale ranging from 1 to 5 as follows: 1-Strongly Disagree (SD); 2-Disagree (D); 3-Uncertain (U); 4-Agree (A); and 5-Strongly Agree (SA). The higher the score on the scale, the higher was the level of utilisation of the indicator in the respondent's institution was deemed to be, and vice versa. Below is the analysis and discussion of the measurement of each of the dimension of human resource strategy evaluation.

The study measured the dimension of consistency. Strategy literature postulates that strategy must pass the Consistency test to ascertain its validity and workability (Rumelt, 1979, as cited by Ungerer and Cayzer, 2016) and David (2013). Consistency is also called suitability (Tilles, 1963, as cited David, 2013), or goodness of fit test (Thompson *et al.*, 2004). Schneider *et al.* (2003) suggest synonymy of consistency with fit, congruence, alignment, and matching. This quality signifies absence of contradictions within and between goals, values, policies, systems and practices within the strategising entity.

In this case the non-contradiction of the human resource objectives, policies, and initiatives on the one hand and overall organisational objectives and policies and strategy on the other. It is vital for management to show that human resource strategy and business strategy are integrated and coordinated (InfoRefuge, n.d.; Forsell, 2012). Consistency sets direction and fosters coherence and focus, which forestall cross-purposes within an entity. The emerging interdependence elicits synergy that then spurs performance. Consistency is an internal quality (David, 2013) and contributes to stability, hence identity maintenance over time, even in the face of requirements for flexibility adaptability in the wake of fast-paced external dynamics (Sato, 2017).

This study used four indicators to measure consistency as a dimension of human resource strategy evaluation. The four indicators generally capture the domain of Consistency that includes: persistence of managerial problems even with changed personnel; win-lose interdepartmental relations; and continuously bringing issues to the top for resolution. Resulting indicators revolved around: alignment of the strategic plan and human resource plan, employee and supervisor awareness of policies and values, and handling of staff and managerial problems, and awareness around human resource plans.

Each indicator of Consistency was presented as a statement. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 (lowest) to 5 (highest). Table 18 depicts the distribution of the rating about the presence of each of these indicators of Consistency.

Table 18

Rating of utilisation of the indicators of the Consistency dimension

Indicator	M	SD	CV
Staff know that their requests must not conflict with overall objectives and values	4.19	0.87	20.84
Heads of department make requests that are aligned with overall objectives and values	4.03	0.795	19.73
Inter-managerial conflicts about HR issues are discerned and easily resolved	3.90	0.746	19.13
Components of human resource plans are well known to executives and heads of departments	3.87	0.846	21.86

Source: Research data

Table 18 shows how the respondents rated the utilisation of the four indicators of Consistency. The above average mean scores ranged from $\bar{x}_1 = 3.87$ ($S_1 = 0.85$) to $\bar{x}_4 = 4.19$ ($S_4 = 0.87$). The indicator with the highest was ‘staff know that their requests must not conflict with overall objectives and values’, $\bar{x}_4 = 4.19$ ($S_4 = 0.87$) with a coefficient of variation of 20.84%. Next was the indicator ‘Heads of department make requests that are aligned with overall objectives and values’, $\bar{x}_3 = 4.03$ ($S_3 = 0.80$) with a coefficient of variation of 19.73%. Respondents rated third ‘Inter-managerial conflicts about HR issues are discerned and easily resolved’, $\bar{x}_2 = 3.90$ ($S_2 = 0.75$) with a coefficient of variation of 19.13%.

The indicator with the lowest mean score was ‘Components of human resource plans are well known to executives and heads of departments’, $\bar{x}_1 = 3.87$ ($S_1 = 0.85$), with a coefficient of variation of 21.86%. Strong internal alignment is also suggested.

Concomitant with the above average means were the low variability in the rating of the indicators. This suggests more than fairly high agreement among the respondents on the items as measures of the consistency principle as applied to human resource strategy evaluation. This is significant as it establishes the definitiveness of the concept, borrowed from business strategy, in relation to human resource strategy evaluation, implying further that human resource strategy does indeed support business strategy. In addition, the rating does establish the viability of human resource strategy evaluation in the strategic management process in universities in Kenya.

But the ranking of the indicators presents a puzzle: in a well-articulated strategy, the highest-rated, \bar{x}_4 , ought to have exchanged positions with the lowest rated, \bar{x}_1 . ‘Line managers’ (heads of department) should be more conversant with elements of strategic planning efforts including those of strategic human resource plans. Indeed, heads of department should be part and parcel of the process of formulating human resource plans, or at least as key stakeholders, they invariably are consulted during situational analysis and environmental scanning (Nyoni *et al.*, 2006). Although the present study did not measure the availability of explicit human resource strategic plans cascaded from strategic plans, it was a well-founded assumption.

Still for components of human resource plans not to be widely known among heads of department would challenge the notion that heads of department can deliberately take up some human resource roles at their department, an indicator of strategic human resource. Or it could also imply the human resource plans are not effectively articulated, orally and in writing as Davies (2011) recommends.

And yet it is not a bad finding that respondents rated highly 'Staff know that their requests must not conflict with overall objectives and values'. Arguably, knowledgeable staff as those found in academia would be more conscious of their requests aligning with university values and policies. Having staff with high level of consciousness of institutional values and policies is a big plus for the institutions. It could be a reflection of staff empowerment, which would not only be facilitative of involvement but also support discussions and negotiations over a wide of people-related issues. It also fits in with the current thinking about human resource driving strategy rather than merely being cascaded from business strategy. Caution, though, is in order: the ratings reflected a management perspective rather than an employee attitude. In addition, the profiles of respondents suggest they are likely to align with the thinking of academic staff academic staff, who are always at the centre of university operations than to the views of that category of employees referred to as support staff.

The response to each indicator of Consistency was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The individual indicator scores were summed up to form a composite index score, borrowing from Nardo *et al.* (2005), Saisana and Tarantola (2002), to create a consistency index score which summarised all the five indicators into a single numeric value for each respondent (reliability coefficient, $\alpha = .873$).

The index score varied from 4, indicating very low utilisation of consistency to 20, indicating very high utilisation of consistency. The higher the score, the higher was the level of utilisation of consistency in human resource strategy evaluation, and vice versa (5 x 1 = 5, low utilisation; 5 x 3 = 15, moderate utilisation; and 5 x 5 = 25, high utilisation). The composite index score had a mean score of $\bar{x} = 16.00$ and a standard deviation of, $s = 2.582$.

To differentiate between the levels of utilisation of Consistency as a dimension of human resource strategy evaluation among the sampled respondents, the score was collapsed into three ordinal categories, borrowing from Kothari (1990) as follows: a score of 4-9 indicated ‘low use’; a score of 10-14 indicated ‘moderate use’; and a score of 15-20 stood for ‘high use’. This is consistent with the rating evaluations such as ‘Exceptional Achievement’, ‘Achieved More than Expected’, ‘Fully Achieved Expected Results’, ‘Partially Achieved Expected Results’, and ‘Did Not Achieve Expected Results’ used by Drexel University (Drexel University, n.d). Table 19 below presents a summary of the levels of utilisation of overall Consistency principle in relation to human resource strategy evaluation.

Table 19

Levels of utilisation of consistency in human resource strategy evaluation

Overall Level of Utilisation	Frequency	Percentage
Low	01	3.2
Moderate	06	19.4
High	24	77.4
Total	31	100

Source: Research data.

The table indicates that majority of respondents, 24 (77.4%) considered the Consistency dimension as being of high utility in human resource strategy evaluation in universities in Kenya. Six respondents, or 19.4%, indicated moderate utilisation while one (1) respondent, 3.2%, rated Consistency as of 'low utilisation'. This suggests that the human resource strategy in all its aspects is aligns to the overall strategy process in universities in Kenya. This is in line with theory which suggests the power of strategic management in its integrative quality (Babalola & Taiwo, 2016), and alignment is critical for integration.

These findings are consistent with those of Awiti *et al.* (2019) who reported responses of up to 95.12% rating strategy as being aligned with overall organisational goals and policies. In a survey of non-governmental organisations in Kenya's Nyanza region, the four dimensions of Consistency, Consonance, and Feasibility positively influenced performance, operationalised as interventions of human immune deficiency virus/acquired immune deficiency syndrome, although it was limited to the extent that it treated strategy evaluation and control as a single variable. Piwowar-Sulej (2017) also reported that 'general human resource practice' is more consistency with goals and policies than 'project-oriented human resource practice'. March (1991, as cited by Sato, 2017) and Moss *et al.* (2014) shows that consistency positively influenced performance.

Schneider *et al.* (2003) argue that fit, congruence, consistency, alignment, and matching are closely related concepts and what they have in common is the idea that both high internal and external alignment are likely to lead to greater quality and efficiency of operations than low alignment. The reason is that organisational forces that are interdependent usually reinforce rather than disrupt each other.

Allui and Sahni (2016) reported majority of respondents rated high alignment of the human resource function with institutional goals among Saudi higher education institutions. And Al Khalifa (2016) finds that strategic alignment positively affects performance (with a high correlation of, $r = .89$ and R-Square of .80) among public organisations in Bahrain. There is literature, however, that contradicts this finding. Kuipers and Giurge (2017) found that no alignment, a concept, as noted earlier, that has close affinity to consistency, existed between strategic human resource and innovation strategy.

That is, combining strategic human resource management and innovation strategy, did not add anything extra to performance. The reason for inadequate supporting and disconfirming literature is due to the dearth of empirical studies around human resource strategy evaluation generally and Consistency in particular. Heracleous and Werres (2015) observe that the leadership factor in misalignment has been well-established in the literature. Dias *et al.* (2016) reported that strategy consistency was not supported among Brazilian private higher education institutions from the perspective of the Balanced Scorecard. Schultz and Parisse-Brassens (2015) argue universities have alienated from their basic rationale by an ascendancy of management 'hostile to the principles that should govern academic communities'. The cultural traits shared by universities in which a divide between the academic and administrative is pronounced signal inconsistency.

Questions that challenge consistency in universities have been raised, even in the popular press (Anyangwe, 2012; Riemer, 2012). Riemer (2012)'s verdict is that systemic managerial failures compromise quality. Anyangwe (2012) observed that academic purpose clashes with human resource practices. Incidence of surplus labour, specifically hiring more non-teaching staff at the expense of teaching staff, has been another criticism.

Highly contested and publicised recruitments to the position of vice chancellorship in some universities in the past decade development (the Star newspaper, January 19, 2020; Petition 66 of 2018 – Kenya Law Report; Standard Media; Business Daily, October 8, 2019; Daily Nation, January 18, 2020) alludes to absent or less effective succession planning and management.

The study measured the dimension of consonance. Rumelt (1980, cited by Ghosh, 2010) requires that strategies must pass the test of Consonance, which means observing a set of trends or individual trends in evaluating strategies. It implies alignment, or fit, of the external kind (David, 2013) as opposed to Consistency which is internal alignment. Institutions need to be cognisant of their external environments (trends). This facilitates adaptation, by responding to the dynamism in the external environment. Survival is a question of adaptation as it is that of stability. Strategy must present an adaptive response to key trends in the external environment (Forsell, 2012). For the human resource function, the external environment is both the organisational context as well as milieu outside the institution. It is some kind of ‘internal externality’ and ‘external externality’.

Strategy needs to be in agreement with the external trends that may impact the entity (Saviano *et al.*, 2018). Thus, being consonant enables avoidance of strategic drift, and implicates opportunities and threats. In this study, five indicators were used to measure Consonance as a dimension of human resource strategy evaluation. The five indicators generally capture the trends that have implications in the following aspects of the dimension: knowledge of opportunities and threats; knowledge of strengths and weaknesses; awareness of change; collaboration versus competition; and external focus. Each indicator of Consonance was presented in a statement form.

The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale, ranging from 1 to 5. Table 20 depicts the distribution of the rating of the utilisation of each indicator of Consonance.

Table 20

Rating of Utilisation of the Indicators of the Consonance Principle

Indicator	M	SD	CV
Focus is more on collaboration than competition	4.06	1.00	24.3%
HR demonstrates adequate knowledge of internal and external change factors	3.94	1.09	27.7%
Change in strengths and weaknesses relative to trends are known and documented	3.71	0.97	26.2%
External HR opportunities and threats are known and documented	3.45	0.89	25.7%
HR pays more attention to its own operations than on issues from other departments	2.65	1.20	45.3%

Source: Research data

Table 20 shows that the respondents rated the utilisation of the five indicators above average, with mean scores ranging from $\bar{x}_1 = 2.65$ ($S_1 = 1.20$) and $\bar{x}_5 = 4.06$ ($S_5 = 1.00$). Among the items rated above average, the highest indicator was ‘Focus is more on collaboration than competition’, $\bar{x}_5 = 4.06$ ($S_5 = 1.00$) with a coefficient of variation of 24.58%. Next was ‘HR demonstrates adequate knowledge of internal and external change factors’, $\bar{x}_4 = 3.94$ ($S_4 = 1.09$) with a coefficient of variation of 27.74%. The third rated indicator was ‘Change in strengths and weaknesses relative to trends are known and documented’, $\bar{x}_3 = 3.71$ ($S_3 = 0.97$) with a coefficient of variation of 26.23%.

They rated fourth ‘External HR opportunities and threats are known and documented’, $\bar{x}_2 = 3.45$ ($S_3 = 0.89$). And rated last was ‘HR pays more attention to its own operations than on issues from other departments’, $\bar{x}_1 = 2.65$ ($S_1 = 1.20$) with a coefficient of variation of 45.25%.

The high rating on collaboration versus competition is consistent with Association of African Universities (AAU) (2020), Sharp (2018), Naidoo (2016), and the Inter-University Council of East Africa (IUCEA) (2015). The reported high ‘collaboration’ as opposed to internal focus is in line with the current thinking of human resource management as a strategic partner, which promotes human resource’s devolution to line management. The AAU (2020) promotes staff exchange to alleviate staff shortages in some African universities, as does the IUCEA (2015). According to Sharp (2018), university academics are given to collaboration even across institutions. Naidoo (2016) has observed that competition among universities is unhealthy arguing it is destructive to traditional academic competition which led to advances in knowledge. The incidence of part-time teaching reduces competition for academics, benefiting all universities.

But there is literature that shows rising competition among higher education institutions for students and staff (Kireeva *et al.*, 2018; Johnson, 2014). Kireeva *et al.* (2018) found among indicators of higher education institution competitiveness that could trigger ‘poaching’ of staff to be the students: academic staff ratio, usually cited as a mark of quality. According to Johnson (2014), higher education has witnessed a boom of new entrants, which necessarily generates rivalry, naturally including competition for staff. Musselin (2018) noted that competition is simultaneously individual, institutional, national and international. Though the war of talent is said to be ever-growing, there are no systematic studies to indicate higher education institutions in Kenya are embroiled in such wars.

The above average rating of human resource's knowledge of internal and external change factors is consistent with the demographic data on education and experience of respondents, and Luo and Qin (2012). Respondents reported their highest level of qualification as follows: PhD (42%); Masters (39%); Bachelors (16%); and Postgraduate Diploma (3%). As regards experience in current position, 94% reported less than 10 years of experience; only 6% had more than 10 years of experience. Fifty-eight per cent (58%) had more than 10 years since attaining highest qualification; 42% had less than 10 years. Finally, 61% of the respondents had more than 10 years experience in previous positions prior to the current position, while 39% had less than 10 years. This implies the capacity of respondents to appreciate the human resource internal and external contexts and dynamics.

The above average rating about change in strengths and weaknesses is consistent with Habimana *et al.* (2018), Supe *et al.* (2018), Asser *et al.* (2018), Genç (2014), and Luo and Qin (2012) among others. Habimana *et al.* (2018) found a positive relationship between SWOT analysis and competitiveness of institutions. According to Supe *et al.* (2018), analysing an institution's internal and external factors is key in establishing competitive advantages higher education institutions.

Genç (2014)'s environmental analysis found 'priorities of top management' a key internal human resource factor. Luo and Qin (2012) performed a SWOT of functions of Chinese universities and found 'abundant human resources' as a top strength and lack of high-quality personnel in some fields as a weakness. Asser *et al.* (2018) have found a significant relationship between dynamic environmental practices and performance. Generally, the SWOT has been a tool of choice in strategic planning in universities.

The rating on human resource opportunities and threats is consistent with Mbithi *et al.* (2017), Ch *et al.* (2016), Chitescua and Lixandru (2016), Simpson *et al.* (2015), Genç (2014), Aslam *et al.* (2013). Geus (2002, as cited by Simpson *et al.*, 2015) found sensitivity to the environment among the key survival essentials. Mbithi *et al.* (2017) found macro-environmental factors, namely political, economic, socio-cultural and technological moderated strategy and performance; and that these factors were actually the sources of the of sugar industry in Kenya, hence the need to monitor them. Ch *et al.* (2016) found the need for comprehensive environmental analysis vital by institutions in the wake of high-paced environmental change.

Chitescua and Lixandru (2016) observed that political activity affected all socio-economic areas while pressure of the economic environment was at the heart of many crises. Genç (2014) pointed out the impact of legislations and changes in the national economy. Aslam *et al.* (2013) spelled out the role of external analysis in human resource planning. Thus, environmental scanning (Bohlander, 1998, as cited by Inforefuge) for demand and supply forecasts brings out an understanding of the labour market characteristics and dynamics.

In relation to universities, a review of a number of strategic plans in the public domain (available online) showed prominence of situational analysis, with environmental scanning in relation to the external environment taking centre stage during the strategic planning process (Hekima University College, 2018; Maseno University, 2017; Embu University College, 2013). For the University of Oxford's Strategic Plan (2018-2023), the 'People' theme ranked third on the list of priorities (University of Oxford, 2018). However, plans did not indicate potential impact of factor (high, medium, low) through tools such as internal factor effect and external factor effect matrices.

The low rating of the indicator on internal focus is consistent with Boudreau and Lawler (2016). This was a reverse statement and is similarly interpreted: HR had an outward focus. Part evidence of strategic orientation, it is in line with Boudreau and Lawler (2016)'s reference to the 'outside-inside' feature of the human resource function. Thus, human resource is able to align with strategy.

The individual indicator scores were summed up to form a composite index score, known as the consonance index score which summarised all the five indicators into a single numeric value for each respondent. The index score varied from 5, indicating very low utilisation of consonance to 25, indicating very high utilisation of consonance. The higher the score, the higher was the level of utilisation of consonance in human resource strategy evaluation, and vice versa. The composite index score had a mean score of $\bar{x} = 17.81$ and a standard deviation of $s = 3.060$. The index score was collapsed into three ordinal categories as follows: a score of 5-11 (low use); a score of 12-18 (moderate use); and a score of 19-25 (high use). Table 21 presents a summary the levels of utilisation of Consonance in human resource strategy evaluation.

Table 21

Levels of utilisation of consonance in human resource strategy evaluation

Overall Level of Utilisation	Frequency	Percentage
Low	0	0.0
Moderate	19	61.3
High	12	38.7
Total	31	100.0

Source: Research data

Table 21 indicates that 61.3% (19) of the respondents had moderate utilisation of Consonance in the human resource strategy evaluation, while 38.7% (12) had high utilisation of Consonance. There is a moderate to high sensitivity to the environmental dynamics in the human resource strategy process among the universities in Kenya. The high levels of Consonance reflect high level of consciousness about events, trends, issues, and expectations in the external environment, both at macro and micro levels. These factors have implications for the internal context.

Thus, it can be inferred the human resource function has alignment with institutional goals, objectives, and strategy as well as fit with the external environment outside the institution. It is to be recalled that for the human resource function, external environment has an ‘internal’ and an ‘external’ aspect. Evidently, universities, as centres of learning, are highly informed institutions; it is expected that they pursue knowledge within and about that environment. Although, high Consonance, signals readiness to embrace change, how far universities capitalised on this suggested strength remains unclear as this study did not set out to capture actual individual trends.

This finding is consistent with (Burnett, 2018; Kivati, 2017; Babalola & Taiwo, 2016; Burawoy, 2015; Genç, 2014; Roth, 2011; Odhiambo, 2011; Boulton, 2009). In addition, Higher education institutions have come under increasingly intense pressure from the public and the regulatory agencies (Burawoy, 2015); the pressure is occasioned by growing demand for higher education, concerns for quality, and declining funding. It is in the external environment that the role of the university is being questioned; high consonance indicates universities are sensitive to this questioning.

Universities are under pressure to contribute to meaningful development of economies via production of human capital as well as innovations. Popular literature also raises staff awareness about the environment (Daily Nation, 2018; Burnett, 2018; Roth, 2011; Boulton, 2009). Thus, consonance is relevant to universities; and as service entities in which people factor is key, consonance assumes significance in strategic human resource planning. Genç (2014) notes external fit is about the adaptation human resource strategy to business strategy. Allui and Sahni (2016) also reported findings similar to high Consonance among Saudi higher education institutions. The recent past has seen universities struggle to align with CUE Standards (CUE, 2014) and to set up University- Industry linkages.

But the high consonance cited above appears at variance with obvious reality at universities (Dusst & Winthrop, 2019; Wanzala, 2017; Kiplangat *et al.*, 2016; CUE, 2014; Caruth & Caruth, 2013). Dusst and Winthrop (2019) commented on a telling mismatch in employer needs and employee skills in the United States, a major cause of the unemployment of graduates. Caruth and Caruth (2013) argued that professors were resistant to change, yet they are at the core of higher education institutions operations. Furthermore, Kiplangat *et al.* (2016) reported that management found lecturers resistant to change in teaching methods. And Wanzala (2017) reported that universities were flouting regulations on the employment and promotion of academic staff.

The third principle of business strategy evaluation adapted for this study was Feasibility (Rumelt, 1979 as cited by cited by Glueck, 1980). A good strategy requires to pass the test of Feasibility; the ability of the entity to implement the strategy with the available resources and without creating new larger problems for itself (Rumelt, 1979 as cited by Forsell, 2012).

Thompson, Gamble and Strickland (2004) refer to feasibility as the performances test. Related questions revolve around how realistic the strategy is in light of the time, resources, and expertise available within the entity and the extent to which past performance demonstrates that capability. Feasibility is an internal quality (David, 2013), but it is of course subject to external dynamics.

In this study, four indicators were used to measure Feasibility as a dimension of human resource strategy evaluation. The four indicators generally capture the following aspects of the dimension: affordability of the strategy; risk associated with the strategy; competence of people for strategy execution; and strategic audit (David, 2013). Each indicator of feasibility was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 22 depicts the distribution of the rating the utilisation of each indicator of Feasibility.

Table 22

Rating of utilisation of the indicators of the feasibility dimension

Indicator	M	SD	CV
A cost-effective, approved, and implemented budget backs HR plans	4.29	0.90	21.0%3
Past performance indicates HR possesses adequate managerial and operational competence and talent	3.87	0.76	19.7%
Evaluations indicate management and staff are not averse to being questioned about their work	3.77	0.73	19.0%
HR plans contains mechanisms to identify and plan for HR-related risks	3.71	1.07	28.9%

Source: Research data

Table 22 shows how the respondents rated the utilisation of all the four indicators of Feasibility. The mean scores ranged from $\bar{x}_1 = 3.71$ ($S_1 = 1.07$) and $\bar{x}_4 = 4.29$ ($S_4 = 0.90$). The highest mean was recorded from the indicator 'A cost-effective, approved, and implemented budget backs HR plans', $\bar{x}_4 = 4.29$ ($S_4 = 0.90$) with a lowest coefficient of variation of 21.03%. Slightly below this was the indicator 'Past performance indicates HR possesses adequate managerial and operational competence and talent' $\bar{x}_3 = 3.87$ ($S_3 = 0.76$) the coefficient of variation was 19.72%. The indicator 'Evaluations indicate management and staff are not averse to being questioned about their work' had the third highest mean, $\bar{x}_3 = 3.77$ ($S_3 = 0.73$), with a coefficient of variation of 19.02%. And lowest mean, $\bar{x}_1 = 3.71$ ($S_1 = 1.07$), was recorded from the indicator 'HR plans contains mechanisms to identify and plan for HR-related risks' with the highest coefficient of variation of 28.87%.

The above average mean scores and low variability, indicated by fairly low coefficients of variations, imply that the respondents were in agreement with the indicators as measures of Feasibility, and also with the Feasibility principle itself as being relevant to the human resource strategy evaluation. This was an important finding: the study adapted the Feasibility principle from business strategy evaluation; its relevance, therefore, for human resource strategy evaluation supports the two-way link between business strategy and human resource strategy, as cascading downwards and aligning upwards. It thus strengthens human resource's position in the strategic management of organisations. Overall, the ratings suggest that the respondents were fairly satisfied with utilisation of the indicators of Feasibility in human resource strategy evaluation.

The rating of resource availability and affordability of strategy (budget) is consistent with Kazmi *et al.* (2015) and the university strategic plans. Kazmi *et al.* (2015) found evidence from a survey that indicated that human resource departments in Pakistan fully capitalised on the budgets to achieve organisational goals. Most university strategic plans universities pursued cost leadership strategy euphemised, calling it human resource rationalisation. But Olsen (2014) reported that 65% of entities rarely link strategy to budgeting.

The rating of the indicator on managerial and staff competence is consistent with CompareHRIS (2020), Ngui and Maina (2019), Deshier (2017), Achilike and Akuwudike (2017), Arnold (2020), and Lewatle (2021). CompareHRIS (2020) asserted that human resource was best placed to implement organisations strategic plans. A study by Ngui and Maina (2019) concluded that workers were the most important assets any organisation as they unfailingly contributed to its efficient functioning.

According to Lewatle (2021), the human resource function is strategic in moving the organisation to its desired end. Arnold (2010) reports strategy execution has become more dependent upon the effective management of human resources in addition to senior management interest and financial support. Achilike and Akuwudike (2017) found that inability to recruit and/or retain suitable staff and incompetence as contributors to business failure. Universities in Kenya are known for their rigour in staff recruitment and selection, which minimises the creeping in of false positives. Deshier (2017) emphasised, besides resource availability, the alignment of resources and capabilities with the organisation determined results. But Ofori and Atiogbe (2012) find a contradictory view, staff and academics lacking ownership of plans. Universities hiring practices are rigorous and well-established (HRcompetence).

Majority of job holders will, therefore, be expected to be above average in competence. Again, some universities have been able to re-configure human resource by redeploying qualified staff from administration to teaching rather than externally recruiting or declaring redundancies.

Respondents' rating of strategic audit above average with low variability is consistent with Mbiti *et al.* (2019), Momanyi and Ngacho (2018), CUE (2018), NCIC (2013), Nyaoga and Kipchumba (2010). Performance appraisals, the beginning point of strategic audit in human resource, are common in universities (Mbiti *et al.*, 2019; Nyaoga & Kipchumba, 2010). Momanyi and Ngacho (2018) found only a moderate positive and significant relationship between auditing strategy and performance. Kenya's CUE (2018) has released detailed inspection reports include statistics on staff. The NCIC (2013) has been critical of universities on ethnic diversity. But Nyaoga and Kipchumba (2010) found appraisals in universities as mere routines and devoid of strategic value. It is noteworthy that there was little mention of strategic audits in the strategic plans reviewed for this study.

The above average rating of the indicator associated with human resource risk is consistent with literature on risk management in human resource (Deloitte, 2018; Jacobs, 2013; Flouris & Yilmaz, 2010; Walsh *et al.*, 2010; Bitsch *et al.*, 2004). Jacobs (2013) has outlined common human resource challenges, among them, universities have had to contend with three in the recent past: ethical behaviour; succession planning; and compliance and regulation. Recent terror attacks on university campuses have pushed the security and safety issue to the fore. Bitsch *et al.* (2004) and Flouris and Yilmaz (2010) asserted that humans are the most basic sources of risk and humans are also the controllers of risk. According to Walsh *et al.* (2010) employee behaviours are difficult to predict, observe, and measure.

The linkage between people, behaviours and performance is problematic; this, in itself, is risk. Human resource, therefore, is part of the problem and can be part of the solution in so far as workplace risk is concerned. Few strategic plans in universities account for risk specifically although it could be embedded in weaknesses and threats.

The individual indicator scores were summed up to form a composite index score, known as the feasibility index score which summarised all the five indicators into a single numeric value for each respondent. The index score varied from 4, indicating very low utilisation of feasibility to 20, indicating very high utilisation of feasibility. The higher the score, the higher was the level of utilisation of feasibility in human resource strategy evaluation, and vice versa. The composite index score had a mean score of $\bar{x} = 19.97$ and a standard deviation of $s = 2.726$. The index score was collapsed into three ordinal categories including a score of 4-9 (low use), a score of 10-15 (moderate use) and a score of 16-20 (high use). Table 23 summarises the levels of utilisation of advantage in human resource strategy evaluation.

Table 23

Levels of Utilisation of Feasibility in Human Resource Strategy Evaluation

Overall Level of Utilisation	Frequency	Percentage
Low	0	0.0
Moderate	8	25.8
High	23	74.2
Total	31	100

Source: Research data

Table 23 indicates that 74.2% of the respondents rated high the utilisation of Feasibility in the human resource strategy evaluation; 25.8% utilisation moderate, and rated utilisation low. This finding suggests the relevance of Feasibility as a concept in relation to human resource strategy evaluation despite its roots in business strategy (Rumelt, 1979 as cited by Forsell, 2012).

The findings are consistent with Adji and Jatmiko (2019) and Bhushan *et al.* (2018) as well as a host of human resource planning literature that deals with human resource demand and supply forecasting by quantities and disciplines, gap analysis, and action programming. Adji and Jatmiko (2019) found feasibility analysis of e-recruitment useful in anticipating and eliminating problems that could cause stocking organisations with human resource that is at odds with company requirements. Bhushan *et al.* (2018) reported usefulness of feasibility analysis in outsourcing of human resource services. Mohan (2018) observes organisations are people-centric and thus at the heart of all forms of analyses.

But feasibility success can only be effectively evaluated strategy has been implementation, which most of the time is not the case (Castro *et al.*, 2020; Alharthy *et al.*, 2017). Feasibility analyses are always limited to technical, operational, and economic analyses and rarely specifically to human resource, and the problem is compounded by the underdevelopment of analytics in human resource. Rumelt (1980, as cited by Ghosh, 2010) suggested that strategies must pass test of Advantage. Thompson *et al.* (2004) call it the competitive advantage test. Questions posed about Advantage revolve around whether or not the (human resource) strategy yields success to the organisation. Viable strategy needs to create new competitive advantage to the organisation, or at the very least, maintain the existing advantages (Forsell, 2012).

Advantage is largely external to the entity (David, 2013); opportunity to be exploited resides in the external environment, as are threats to be avoided. For the human resource function the context is both the organisational as well the actual external environment outside the institution, which affect the cost and value of human resource intake, human resource maintenance, and human resource discharge.

In this study, the investigator used three indicators to measure Advantage as a dimension of human resource strategy evaluation. The two indicators generally capture the following aspects of the dimension: the cost in relation to human resource; value innovation in relation to human resource; and positional advantage in relation to human resource. Each indicator of Advantage was presented in a statement form. The respondents rated their consideration of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 24 presents the distribution of the rating about the utilisation of each indicator of Advantage in human resource strategy evaluation.

Table 24

Rating of Utilisation of Indicators of Advantage

Indicator	M	SD	CV
Evaluations show HR plans configure practices for cost minimization	4.29	0.90	21.0%
HR plans contain practices to defend unit and institution's position (in the country and the world)	4.16	0.58	14.0%
Evaluations show HR plans configure practices for value innovation	3.97	0.87	22.0%

Source: Research data

Table 24 shows how the respondents rated the utilisation of the three indicators of Advantage. They rated all three indicators above average. The indicators revolved around employee skills in relation cost minimisation, value innovation, and positional advantages. They rated highest the indicator ‘Evaluations show human resource plans configure practices for cost minimisation’, $\bar{x}_3 = 4.29$ ($S_3 = 0.90$) with a coefficient of variation of 21.00%. Next was ‘Evaluations show HR plans configure practices for value innovation’, $\bar{x}_2 = 4.16$ ($S_2 = 0.58$) with a coefficient of variation of 13.99%. Lastly respondents rated the indicator ‘HR plans have practices to defend institution’s position in the country and the world’, $\bar{x}_1 = 3.97$ ($S_1 = 0.88$) with a coefficient of variation of 22.04%. The above average mean scores as well as the low variability denote strong consensus by the respondents about the appropriateness of the indicators as measures of Advantage and its relevance as factor in human resource strategy evaluation.

The rating of cost leadership is consistent with strategic plans of a number of sources such as Kyule *et al.* (2014), Bamberger *et al.* (2014), and (Amaeishi, 2013). The element of cost is more relatable to the human resource (probably as a throwback to personnel management) in a university setting than is the concept of value creation, principally because human resource outcomes are process or intermediate outcomes rather than bottom line outcomes (Amaeishi, 2013).

Among cost minimisation benefits of human resource is avoidance of the costly legal problems that arise from non-compliance (Bamberger *et al.*, 2014). Kyule *et al.* (2014) found use of part-time lecturer a cost minimisation strategy. But it suffered poor regulation and dissatisfaction.

Declining funding from government and tuition fees has raised cost consciousness among university managers. This in turn suggests pursuit of advantage through cost leadership. This is almost always through staff rationalisation. The high rating of the positional advantage of the human resource unit and the institution is consistent with Hamdamin and Atan (2019), CUE (2014), (NCIC, 2013), Rumelt (1993), Rumelt (1993 as cited by Ghosh, 2010) position consists in supplying very uniquely valuable products or services. Human resource has to be unique in its offerings to its 'customers', not to itself (Ulrich, 2015).

In line with human resource objectives, in particular the personal, organisation, and societal (Aswathappa, 2008), human resource has to 'sell' its services to both internal and external stakeholders, notably the unions, healthcare facilities, insurance, and regulatory agencies. Hamdamin and Atan (2019) found that strategic human resource management practices (offerings) affect human capital which in turn affects commitment and performance. The CUE (2014) has required universities to maintain certain minimum employment standards for academic staff. The NCIC (2013) has challenged universities on inclusivity as a factor in national cohesion and integration. Thus, human resource has a vital role to play in strengthening its own position within universities as well as the position of the institutions in the eyes of stakeholders.

The rating of the indicator on value innovation above average is consistent with Stanleigh (2015), and Verlinden (2017). Innovation is based on new ideas, methods, and technologies (Verlinden, 2017). Strategic plans at universities emphasise income generation including grant-writing among other income generating activities. Verlinden (2017) identified areas of innovation as recruitment, onboarding, talent management, learning and development, and performance management.

According to Stanleigh (2015), human resource fosters innovation by hiring for innovation, creating a culture of innovation, and training and rewarding for innovation. As a result of premium put on innovation, universities may have to create corporate universities within universities!

The individual indicator scores were summed up to form a composite index score, known as the feasibility index score which summarised all the three indicators into a single numeric value for each respondent. The index score varied from 3, indicating very low utilisation of feasibility to 15 indicating very high utilisation of feasibility. Higher scores corresponded with higher levels of utilisation of feasibility in human resource strategy evaluation, and vice versa. The composite index score had a mean score of $\bar{x} = 8.03$ and a standard deviation of $s = 1.17$. The index score was collapsed into three ordinal categories including a score of 2-4 (low use), a score of 5-7 (moderate use) and a score of 8-10 (high use). Table 25 summarises the levels of utilisation of feasibility in human resource strategy evaluation.

Table 25

Levels of utilisation of advantage dimension

Overall Level of Utilisation	Frequency	Percentage
Low	0	0.0
Moderte	7	22.6
High	24	77.4
Total	31	100

Table 25 indicates that overall, respondents rated advatage as follows: 24 respondents, 77.4%, reported high utilisation of advantage in the human resource strategy evaluation; seven (7), 22.6%, had moderate utilisation; and none had low utilisation of advantage. This

suggests that as a principle in business strategy evaluation Advantage has traction with the human resource strategy evaluation. It, therefore, suggest consistency of human resource strategy with business and corporate level strategy, a significant finding since human resource strategy is implementational and is, therefore, vital for overall organisational strategic success. It was assumed that as members of senior management, respondents had a role in overall strategy formulation, implementation, and evaluation.

Research shows traditional sources of advantage inadequate; this shifts focus to people (Pfeffer, 1994, as cited by Malik, 2009). Rather than still think of advantage as an external phenomenon, thinking is shifting to competitive advantage as internally generated. This brings to the fore organisations and employees as the key differentiators for their perfect inimitability or imperfect imitability. Guest (1992, as cited by Baker, 1999) agrees that the following strategic human resource management benefits support commanding organisational performance: superior job performance; more capabilities in problem solving, change and innovation; low cost; and low turnover, absence, and grievance procedures.

Rahnama and Rahpeyma (2015) agree that advantage is no longer about time, space, and resources alone but about strategic thinking, a people attribute. Human resource systems, policies, and practices should be bundled in such a manner that allows strategic thought to thrive throughout the organisation so that human resource drives strategy. Walsh *et al.* (2010) also argued that human resource infrastructure is a source of competitive advantage as did Choudhury and Mishra (2010) who asserted that that people are the organisations greatest asset, providing the intellectual capital that drives differentiation and value-added services so that the human resource strategy becomes the driving force of the long-term strategy of organisations.

But there are doubts that this high rating of advantage translates into superior performance of human resource in universities. In many universities, human resource is less autonomous and is coupled with the general administration function. Human resource specialists are lowly placed in the hierarchy. Secondly, the dominant staff category in universities, the academic staff, is said to be highly motivated and independent, with horizontal loyalties to colleagues rather than vertical loyalties to the institution (Warwick, 2005). This, coupled with anti-managerial bias, makes it difficult for HR to formulate and execute high performance work practices. And then there is the growing managerialism.

The study then derived overall utilisation of HR strategy evaluation. The response to each constituent indicator of each dimension of HR strategy evaluation was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. Since HR strategy evaluation is a complex and multi-dimensional concept captured by the four dimensions with a total of 16 indicators, it was measured by a composite index score, known as utilisation of human resource strategy evaluation index score. The individual scores of the 16 indicators of the four dimensions for each respondent were summed up to form an overall use of HR strategy evaluation index score for each respondent (reliability coefficient, $\alpha = 0.873$).

The overall composite index score varied from 16-80, indicating very high utilisation of HR strategy evaluation. Higher score indicated higher level and vice versa. The index score had a mean score of $\bar{x} = 61.81$ and a standard deviation of $s = 7.485$. The score was later collapsed into three ordinal categories in order to differentiate between the levels of utilisation of human resource strategy evaluation among the sampled respondents. The levels included a score of 16-37 (low use), a score of 38-58 (moderate use) and a score of 59-80 (high use). Table 26 summarises the overall levels of utilisation of HR strategy evaluation.

Table 26*Overall levels of utilisation of human resource strategy evaluation*

Overall Level of Utilisation	Frequency	Percentage
Low	0	0.0
Moderate	12	38.7
High	19	61.3
Total	31	100.0

Source: Research data

Table 26 indicates that 61.3% (19) of the respondents had high utilisation of human resource strategy evaluation, while 38.7% (12) had moderate utilisation. None reported low levels of utilisation of human resource strategy evaluation. This suggests that the relevance of the strategy evaluation as applied in business strategy to the human resource strategy, a functional level strategy. This could be attributed to the growing need for the human resource management function to assume a greater role in the strategy process and support competitiveness of organisations.

4.3.1.3 Test of Hypothesis One

Objective one was accompanied by the null hypothesis one: there was no significant relationship between utilisation of human resource strategy evaluation and performance of human resource function in universities in Kenya. The assumption was that the higher the utilisation of the human resource strategy evaluation, the higher the level of performance of the strategy and vice versa.

Human resource strategy improves human resource systems and practices, which in turn propel organisational members to better perform (Wright, 2008). Mello (2011), for example, proposes the following human resource value chain: employee outcomes lead to organisational outcomes, which lead to financial and accounting outcomes, which then lead to market outcomes. Human resource strategy evaluation should be able to assess this chain for improvements and/or corrections.

The first step in testing the hypothesis was to establish the significance of correlation. The first objective of this study was to determine the relationship between human resource strategy evaluation and performance of the human resource strategy. A relationship is a connection or association between two or more things. Using the Pearson's Product Moment Correlation Coefficient, (r), and the regression coefficient, (r^2), the study established the association between the independent variable, human resource strategy evaluation, and dependent variable, performance of the human resource strategy. Pearson's Product Moment Correlation Co-efficient, r , is statistical method determines degree of the relationship between two variables in terms of strength and direction, between two or more variables (Mukaka, 2012).

In theory, correlation ranges from the -1 to +1; +1 representing a perfect positive association, and -1 denoting perfect negative association (Jaadi (2019). Zero represents neutrality. The numeric value represents the strength of the relationship. The sign denotes the direction of the association: either the two variables move in the same direction (positive sign hence a positive association), or in the opposite direction (negative sign hence a negative association). The values of r are interpreted as follows: 0.90 to 1.00 - very high; 0.70 to 0.90 - high; 0.50 to 0.70 - moderate; 0.30 to 0.50 - low; and 0.00 to 0.30 – negligible (Schober, *et al.* (2018).

The goal was to establish the extent the two variables covary and to quantify the strength of the relationship between them. For the method to be used, the two variables were quantified and measured on a continuous (ratio/interval) scale using the generated composite index scores; the utilisation of human resource strategy evaluation index score, and performance index score. Thus, the human resource strategy evaluation index score (and the indices of its dimensions) constituted the independent variable, while human resource strategy performance index score was the dependent variable.

The relationship between the calculated p value and the significance value (α) formed the basis for rejection and non-rejection of the null hypothesis; with $p < (\alpha)$ for significance and $p > (\alpha)$ for non-significance (Schrober *et al.*, 2018). Table 27 is a summary the correlation coefficient matrix of human resource strategy evaluation and performance of an organisation.

Table 27

Correlation coefficients of first predictor dimension and criterion

		Performance index score
Overall utilisation of HRSE index score	R	.608**
	Sig. (2-tailed)	.000
	N	31
Consistency index score	R	.400*
	Sig. (2-tailed)	.026
	N	31
Consonance index score	R	.471**
	Sig. (2-tailed)	.007
	N	31
Advantage index score	R	.530**
	Sig. (2-tailed)	.002
	N	31
Feasibility index score	R	.539**
	Sig. (2-tailed)	.002
	N	31

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

As Table 27 indicates, among the registrars for administration in universities in Kenya, human resource strategy evaluation and the performance of the human resource strategy were moderately positively correlated, $r(29) = .61$, $p = .000$. The analysis further shows that $p\{0.000\} < 0.001$, way less than the hypothesised $\alpha = 0.05$, suggests rejection of the null hypothesis, which then leads to the conclusion there was a significant relationship between the utilisation of human resource strategy evaluation and performance of the human resource strategy in universities in Kenya.

The finding, then, establishes a nexus between human resource strategy evaluation and the performance of the human resource strategy. This is consistent with Hieu and Nwachukwu (2019), Kazmi (2008), WFP, Digman (2003), Certo & Peter (1993), and Ghosh (2010). Performance is enhanced by forestalling risk (Hieu & Nwachukwu, 2019; Certo & Peter, 1993), establishing validity of the strategy in the first place (Rumelt as cited by Ghosh, 2010), derivation of critical success factors and hence providing a road map (Digman, 2003), establishing congruence between levels of strategy (Kazmi, 2008), and fostering learning and development from evaluation data (GPE, 2017).

In addition to the overall relationship, the study further established the relationship between individual dimensions of utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya. Table 27 indicates that there was a moderate positive correlation between the utilisation of Consistency of the human resource strategy and performance of human resource of the human resource strategy, $r(29) = .40$, $p\{0.026\}$

The positive correlation between the two variables suggests the higher the utilisation of consistency of the human resource strategy evaluation, the higher is the level of performance of the human resource strategy, and vice versa. Since, $p\{0.026\} < 0.05$, the study, therefore, rejected the null hypothesis and concluded that there was a significant relationship between utilisation of the consistency in human resource strategy evaluation and performance of human resource strategy in universities in Kenya. This suggests the human resource strategy evaluation was linked to overall institutional mission, vision, and strategy of the institutions.

Table 27 also indicates that there was a moderate positive correlation between the utilisation of the consonance (suitability) dimension in human resource strategy and performance of human resource strategy in universities in Kenya, $r(29) = .47$, $p = 0.007$. The positive correlation between the two variables suggests the higher the utilisation of consonance of the human resource strategy evaluation, the higher is the level of performance of an organisation, and vice versa.

And since, $p\{0.000\} < 0.01$, the study rejected the null hypothesis and concluded that there was a significant relationship between utilisation of the consonance principle in human resource strategy evaluation and performance of the human resource strategy in universities in Kenya. The human resource strategy passed the goodness of fit test, that is, it well-matches to its environment (Thompson *et al.*, 2004), and thus avoids strategic drift and hypocrisy; consequently, it earn universities legitimacy. The finding, however, is inconsistent with Junior *et al.* (2018) who found universities marred by strategic tensions between the macro and micro.

Table 27 further indicates that there was a moderate positive correlation between the utilisation of advantage dimension in human resource strategy evaluation and the performance of the human resource strategy, $r(29) = .53, p = 0.002$. The positive correlation between the two variables suggests the higher the utilisation of the advantage principle in human resource strategy evaluation, the higher is the level of performance of the of human resource strategy and vice versa.

The analysis also yielded a corresponding $p\{0.002\} < 0.01$. Consequently, the study rejected the null hypothesis concluding that there was a significant relationship between utilisation of Advantage in human resource strategy evaluation and performance of the human resource unit in universities in Kenya. Advantage has to do with superiority in resources, skills, and position (Rumelt 1979 as cited by David, 2013). To bring Advantage, people must feel something, have something, and do something (Wright, 2008). In military strategy, position meant ground (Adair, 2010; Sun Tzu, n.d). Universities live on reputations (position) usually built by its human resources and can be similarly threatened as in the case of unethical behaviour.

Finally, the table also indicates that there was a moderate positive correlation between the utilisation of the Feasibility principle in human resource strategy and performance of the human resource strategy, $r(29) = .54, p = 0.002$. The positive correlation between the two variables suggests the higher the utilisation of the feasibility principle in human resource strategy evaluation, the higher is the level of performance, and vice versa. This is logical and expected: Feasibility connotes workability or practicality of the human resource strategy; the more workable the strategy, the more it is likely to contribute to human resource success.

The table also shows a corresponding $p\{0.002\} < 0.01$. Thus, the study rejected the null hypothesis and concluded that there was a significant relationship between utilisation of Feasibility in human resource strategy evaluation and performance of the human resource strategy in universities in Kenya. Feasibility is vital in the face of strategic decisions that are large, involving significant resources, are long-term, and have irreversible consequences (Johnson & Scholes, 1997). Human resource planning is a form of feasibility analysis.

Thus, human resource demand and supply forecasts enable organisations to anticipate future human resource needs and plan recruitment, retrenchments, compensations, and deployments. The whole human resource planning project is actually evaluation of current and future human resource requirements and how to meet them. This in turn has implications on overall strategy. The finding is consistent with Muma *et al.* (2018) who found human resource planning positively associated with retention of employees in Kenyan universities. But the finding is inconsistent with Mkandatsama and Nyanhete (2017) who found the unstable economy affecting human resource planning in state universities.

On the basis of the positive and significant associations among the variables in this objective, the study determined the contribution of the utilisation of human resource strategy evaluation (independent variables) to performance of human resource strategy in universities (the dependent variable). The study employed the regression analysis technique, which estimates the amount of change in the dependent variable that can be explained by the independent variable. In regression analysis, an independent variable is used to explain and/or predict the values or changes in a dependent variable (Canavos & Miller, 2001).

As presented in Chapter Three, this study was based on a stochastic regression, single linear model of the general form, $y = a + b_1x_1 + e$, which the researcher tested at $\alpha = 0.05$ significance level (95% confidence level). Tables 28, 29 and 30 present summaries of the regression results.

Table 28

Regression Model Summary for first predictor and criterion

R	R Square	Adjusted R Square	Std. Error of the Estimate
.608 ^a	.369	.347	6.760

a. Predictors: (Constant), Utilisation of Human Resource Strategy Evaluation

Table 28 presents the values of R , R^2 , Adjusted R^2 , and the standard error of the estimate. The value of R^2 , the coefficient of determination, defines the percentage of the variations in the dependent variable (performance of the human resource strategy) explained by the model. In this study, the contribution of the utilisation of human resource strategy evaluation to the performance of the human resource strategy was $R^2 = .35$. Therefore, the regression model indicates that the independent variable (utilisation of human resource strategy evaluation) explained or accounted for 35% of changes in the level of performance of the performance of the human resource strategy. This, then, means that other variables (factors) not included in this model contributed the remaining 65% of changes in the level of performance of human resource strategy.

With R and R^2 , the study needed to determine the significance or otherwise of this contribution. The researcher utilised the Analysis of Variance (ANOVA), F-test, to check the overall significance of the regression model. The rule is to compare the calculated p value and the significance value, α . Where p is less than the significance value, α , then the regression model is considered significant, and vice versa. Table 29 presents a summary of the significance of the influence of the independent variable on the dependent variable on the basis of the F-test.

Table 29

Analysis of Variance F-Test Results first predictor and criterion

Model		SS	Df	MS	F	Sig.
1	Regression	775.682	1	775.682	16.975	.000 ^b
	Residual	1325.157	29	45.695		
	Total	2100.839	30			

a. Dependent Variable: Performance of Human Resource Strategy

b. Predictors: (Constant), Utilisation of Human Resource Strategy Evaluation

From Table 29, since $F(1,30) = 16.975$ and $p\{0.000\} < 0.001$, then the study concluded that the regression model was statistically significant in predicting the influence of the utilisation of human resource strategy evaluation (independent variables) on performance of human resource strategy (dependent variable).

The final step in the regression analysis was the derivation of the actual regression model. The step requires the constant term and the regression coefficients of the independent variable and dependent variable. Table 30 presents summaries of these quantities.

Table 30*Regression Coefficients for first predictor and criterion*

Model	Unstandardised Coefficients		Standardised Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	6.820	10.263		.665	.512
HRSE index score	.679	.165	.608	4.120	.000

a. Dependent Variable: Performance

The finding is consistent with the World Bank (2019), Hieu and Nwachukwu (2019), Anya *et al.* (2017), Walsh *et al.* (2010), Nayeri *et al.* (2008). Hieu and Nwachukwu (2019) in a similar study concluded that strategy evaluation process is a good predictor of variations and strategic performance of the mobile telecommunication firms in Nigeria, with $R^2 = .31$ and $\beta_1 = 0.319$. Anya *et al.* (2017) found strategic action had a positive influence on customer satisfaction and productivity. Nayeri *et al.* (2008) found use of the balanced scorecard in evaluating the strategic position of higher education institutions. The World Bank (2019) reported about performance contracting in universities as a mechanism to attract additional funding. And Walsh, *et al.* (2010) argued that entities that manage their human resource more strategically, including human resource strategy, stood to reap greater returns.

But drawing conclusions about human resource strategy evaluation effectiveness could be premature. The assumption that universities carry out systematic evaluations merely because they formulate strategic plans is problematic. And strategic planning itself is relatively new in Kenyan universities. Research in this area is, therefore, fledgling, and evidence of success or failure is, thus, inconclusive.

Furthermore, there is general consensus in literature that strategy evaluation generally, and human resource strategy evaluation particularly, is an area that is under-researched. According to Bernadin (2007) and Aspromourgos (2012) the underdevelopment of metrics is the main obstacle, just like human resource management itself is still rooted in personnel management (Aswathappa, 2008; UNICEF, 2007).

4.3.2 Findings for Objective Two

The second objective of this study sought to determine the relationship between the utilisation of human resource strategy control and performance of the human resource strategy in universities in Kenya. The objective was informed by the fact that human resource and its related infrastructure constitute significant investments for higher education institutions, as labour intensive socio-economic units that have to be steered in a manner that creates superior value for consumers of the services. Performance of human resource strategy was elaborately analysed in the first objective of this study. In this section, the researcher analyses human resource strategy control and thereafter relates the results to those performance findings.

4.3.2.1 Utilisation of Human Resource Strategy Control.

Strategic control is a complex and multi-dimensional concept. From literature review (DuBois, 2018), the concept has four dimensions as follows: premise control; implementation control; surveillance control; and special alerts control. The study adopted the four dimensions to reflect and capture the full complexity of the concept of human resource strategy control, which in theory, cascades from overall organisational or strategic control. The study examined each of these dimensions separately and cumulatively.

The dimensions varied in the number of indicators assigned to them: premise control had five; implementation control had two; surveillance control had three; and special-alerts control has three. The identified indicators for each dimension were converted into a set generic statements concerning human resource strategy control.

The investigator asked the sampled 31 respondents to rate the level of utilisation of indicators of each dimension in their institution. The respondents rated their utilisation of each indicator on a five-point Likert scale ranging from 1 to 5, where 1 stood for strongly disagree (SD), 2 for disagree (D), 3 indicated uncertain (U), 4 for agree (A), and 5 for strongly agree (SA). The higher the score, the higher was the level of utilisation of the indicator in the respondent's institution and vice versa. Below is a presentation of the measurement of each dimension of human resource strategy control.

The study measured Premise Control. Strategy is set within contexts: political; economic; social; and technological. Strategising generally, and human resource strategising in particular, rests on assumptions owing to the uncertainty of these environments. A given strategy will succeed or fail to the extent that the assumptions will hold or not hold. In this study, five indicators were used to measure utilisation of Premise Control as a dimension of human resource strategy. The five indicators generally capture the following aspects of the dimension in relations to human resource strategy: strengths and weaknesses; opportunities and threats; change in opportunities and threats; shifts in competitor's strengths and weaknesses; and alteration in the competitor's human resource infrastructure. The researcher presented each Premise Control indicator in statement form that respondents rated as shown in Table 31 below.

Table 31*Rating of Utilisation of Indicators of Premise Control*

Indicator	M	SD	CV
HR plans indicate adequate understanding of internal strengths and weaknesses	3.97	0.75	18.9%
HR plans indicate adequate knowledge of external opportunities and threats	3.87	0.89	2.9%
We know when and why our HR opportunities and threats are changing	3.68	1.01	27.5%
Changes in competitors' HR initiatives affect our own HR plans	3.58	1.03	28.63%
We know when and why HR initiatives of competitors have changed	3.29	0.97	29.6%

Source: Research data

Table 31 shows the way the respondents rated the utilisation of all the five indicators of Premise Control. All responses had a mean score above the average mean score, ranging between $\bar{x}_1 = 3.29$ ($S_1 = 0.97$) to $\bar{x}_5 = 3.97$ ($S_5 = 0.75$). The respondents rated topmost the indicator 'HR plans indicate adequate understanding of internal strengths and weaknesses', $\bar{x}_5 = 3.97$ ($S_5 = 0.75$) with a low coefficient of variation of 18.94%. This was followed by the indicator 'Changes in competitors' HR initiatives affect our own HR plans', $\bar{x}_4 = 3.87$ ($S_4 = 0.89$) with coefficient of variation of 22.86%. Third, they rated 'We know when and why our HR opportunities and threats are changing', $\bar{x}_3 = 3.68$ ($S_3 = 1.10$) with a coefficient of variation of 27.52%. Fourth-rated was the indicator 'Changes in competitors' HR initiatives affect our own HR plans', $\bar{x}_2 = 3.58$ ($S_2 = 1.03$) with a coefficient of variation of 28.63%. And last, the respondents rated 'We know when and why HR initiatives of competitors have changed, $\bar{x}_1 = 3.29$ ($S_1 = 0.97$) with coefficient of variation of 29.57%.

The rating suggests that the respondents were fairly satisfied with the utilisation of the indicators of premise control in human resource strategy. The fairly low variability was also an indication that respondents were, to a large extent, in agreement that the indicators represented human resource strategy control. This is of conceptual importance given that the indicators are adaptations from the general organisational (strategic) control. The top three rated indicators show that respondents were more concerned about their own internal strengths and weaknesses, the opportunities and threats they themselves face, and changes thereof, than with those of their competitors.

This probably suggests that for universities, internal human resource capabilities are a superior source of competitiveness, an argument proponents of the resource-based view make. A review of some strategic plans of universities posted on websites show that universities analyse their internal strengths and weaknesses, and the opportunities and threats they face from the external environment during the process of strategic planning. The last two indicators about the initiatives of competitors arise probably out of concern over the possibility of poaching of their best staff.

But the internal factor analysis (IFA) and external factor analysis (EFA) are devoid of the rigour that can lead to rating and ranking of Internal factor effects (IFE) and external factor effects (EFE) (Leliga *et al.*, 2019) from the human resource strategy perspective. There is little evidence from the literature that universities are embroiled in rivalry for human resource. Instead, they appear to be cutting jobs (Vassiley, 2020) and raising casualisation. But other sectors of the economy have become increasingly attractive: public sector jobs in counties and the national government.

The response to each constituent indicator was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The individual indicator scores were summed up to form a composite index score, known as the premise control index score which summarised all the five indicators into a single numeric value for each respondent. The index score varied from 5, indicating very low utilisation of premise control to 25, indicating very high utilisation of premise control. The higher the score, the higher was the level of utilisation of premise control in human resource strategy, and vice versa.

The composite index score had a mean score of $\bar{x} = 18.39$ and a standard deviation of $s = 3.649$. The index score was collapsed into three ordinal categories including a score of 5-11 (low use), a score of 12-18 (moderate use) and a score of 19-25 (high use). Table 32 summarises the levels of utilisation of premise control in human resource strategy.

Table 32

Levels of Utilisation of premise control

Levels of Utilization	Frequency	Percent
Low	1	3.2
Moderate	13	41.9
High	17	54.8
Total	31	100.0

Table 32 indicates that 17 of the respondents, 54.8 percent, reported high utilisation of Premise Control in the human resource strategy, 13 respondents, 41.9 percent, indicated moderate utilisation, and one (1), 3.2 percent, rated utilisation as low. This suggests that human resource strategy control in universities is based on some assumptions that revolve around the internal environment (strengths and weaknesses) as well as opportunities and threats (from the general external and industry environments) for both the institutions and

their competitors. This is consistent with Robinson and Pearce (2005). The assumptions, though, may not be explicitly stated.

The second dimension was implementation control. In the final analysis, controls ensure strategy is on track and it yields results. This is the part Implementation control, ‘arguably the most important of the strategic controls’, plays. This type of control is based on milestones and thrusts, that is, markers along the strategy safari, and the propulsion forces towards and past those markers. Dimensions of implementation control for human resource strategy control are cascaded from strategic control. Ideally involves all employees, hence the key role of human resource management.

In this study, three indicators were used to measure utilisation of implementation control as a principle of human resource strategy. The three indicators generally capture the following aspects of the dimension: personal milestones and thrusts; functional milestones and thrusts; and the review of milestones. Each indicator of surveillance control was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 33 depicts the distribution of the rating the utilisation of each indicator of implementation control.

Table 33*Rating of utilisation of indicators of implementation control*

Indicator	M	SD	CV
Employees know what is required for HR to update their personal record	4.19	0.910	21.7%
Statements of intended and actual HR action plans are well-documented	4.13	0.670	16.2%
Periodic reports exist indicating major HR-related achievements	3.74	1.210	32.4%

Table 33 shows how the respondents rated the utilisation of all the three indicators of Implementation Control in relation to human resource strategy control. Mean scores ranged from $\bar{x}_1 = 3.74$ ($s_1 = 1.21$) to $\bar{x}_3 = 4.19$ ($s_3 = 0.91$). The highest rated indicator was ‘Employees know what is required for HR to update their personal record’, $\bar{x}_3 = 4.19$ ($s_3 = 0.91$) with a coefficient of variation of 21.72%. This was followed by ‘Statements of intended and actual HR action plans are well-documented’ $\bar{x}_2 = 4.13$ ($S_2 = 0.67$) with the lowest coefficient of variation of 16.22%. And last was the indicator ‘Periodic reports exist indicating major HR-related achievements’, $\bar{x}_1 = 3.74$ ($S_2 = 1.21$) with the highest yet moderate coefficient of variation of 32.35%.

The rating suggests that the respondents were fairly satisfied with the utilisation of the indicators of implementation control in human resource strategy. Low variability implies the agreement among respondents about the applicability of the indicators in human resource strategy control. This is significant since the dimension of implementation control was originally formulated for overall strategic control. The highest rated indicator pertains to personal objectives of human resource management.

This suggests, quite curiously, this type of objective takes precedence over functional, organisational, and societal objectives. But this result is consistent with Wright (2008) according to whom the human resource strategy focuses on a particular job or group of jobs. The finding is also consistent with the general nature of university jobs, especially those in teaching, which are highly individualised. This is consistent with Granof *et al* (2001, as cited by Patro, 2016) and Andersen (2006).

The response to each constituent indicator was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The individual indicator scores were summed up to form a composite index score, known as the implementation control index score which summarised all the three indicators into a single numeric value for each respondent. The index score varied from 3, indicating very low utilisation of implementation control to 15, indicating very high utilisation of implementation control. The higher the score, the higher was the level of utilisation of implementation control in human resource strategy, and vice versa. The composite index score had a mean score of $\bar{x} = 12.06$ and a standard deviation of $s = 2.323$. The index score was collapsed into three ordinal categories including a score of 3-6 (low use), a score of 7-11 (moderate use) and a score of 12-15 (high use). Table 34 summarises the levels of utilisation of implementation control in human resource strategy.

Table 34

Levels of utilisation of premise control

Levels of Utilisation	Frequency	Percent
Low	0	0.0
Moderate	10	32.3
High	21	67.7
Total	31	100.0

Source: Research data

Table 34 indicates that 21 respondents, 67.7%, reported high levels of utilisation of implementation control in the human resource strategy; 10, 32.3%, indicated moderate utilisation. None reported low use. This suggests that human resource strategy control can stand distinct as concept from its tactical and operational level counterpart, which in turn may be attributable in part to the growing realisation that people are the most effective sources of competitive advantage among organisations. Implementation of the strategy is directly related to what people in the organisation do.

There is limited empirical literature around information characteristics per se. However, the dimension sets of tactical or management controls systems as well as operational control with which research have been extensively engaged. While the study found specific literature on human resource strategy control unavailable, the findings are nonetheless consistent with similar research in the management controls systems, for example Davis (2014 as cited by du Toit, 2015), Verano-Tacoronte and Melián-González (2008), who find high levels of behaviour control associated with performance, and (Snell, 1992).

Davis (2014, as cited by du Toit, 2015) discussed implementation control as a four-phased approach common in the literature namely: setting standards of performance; measuring performance; identifying deviations of the actual from the standards; and instituting corrective measures to eliminate discrepancies. It is the subject of extensive research. Bušina and Šikýř (2014), however, found human resource controlling erratic in concept and practice. The strategic plans reviewed indicate provision for annual reviews (Maseno University).

The third dimension of human resource strategy control was surveillance control. Strategy surveillance monitors a broad range of events inside and outside the company that are likely to threaten the course of a firm's strategy', and to generally improve the strategic information available. It serves as the organisation's 'intelligence wing', capturing strategic information about a wide range of events in the internal, competitive, and remote environment that could implicate the strategy and organisational success.

Subjective and non-formulaic, it is in surveillance control the of wisdom of top-level management is brought into sharp focus for, as to David (2013), it is up to top management to interpret key success factors and how they are monitored. It is a vital method that enables feedforward and Special Alerts control, guarding against the derailment of strategy and forestalling strategic surprises.

In this study, three indicators were used to measure utilisation of surveillance control as a dimension of human resource strategy. The three indicators generally based on multiple information sources capture the following aspects of the dimension: capturing events from professional literature; human resource monitoring mechanisms by means of internal communication; and attendance of conferences. Each indicator of surveillance control was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 35 depicts the distribution of the rating the utilisation of each indicator of surveillance control.

Table 35*Rating of utilisation of indicators of surveillance control*

Indicator	M	SD	CV
HR affiliates to professional bodies and subscribes to professional literature	3.90	1.01	26.0%
Reports, memos, minutes, conversations show HR monitors environmental change at all levels	3.45	1.09	31.6%
HR staff regularly attend conferences on emerging HR practices	3.32	1.19	36.0%

Source: Research data

Table 35 shows how the respondents rated the utilisation of all the three indicators of Surveillance Control above average with a mean score ranging between $\bar{x}_1 = 3.32$ ($S_1 = 1.19$) and $\bar{x}_3 = 3.90$ ($S_3 = 1.01$). Respondents rated top the indicator on professional literature, ‘human resource subscribes to professional bodies and literature’ $\bar{x}_3 = 3.90$ ($S_3 = 1.01$) with a coefficient of variation of 25.95%. This was followed by the indicator on monitoring, ‘Reports, memos, minutes, conversations show human resource monitors environmental change at all levels’, $\bar{x}_2 = 3.45$ ($S_2 = 1.09$) with a coefficient of variation of 31.62%. Lastly respondents rated the indicator on conferences, ‘human resource staff regularly attend conferences on emerging human resource practices’, $\bar{x}_1 = 3.32$ ($S_1 = 1.19$) with a coefficient of variation of 35.96%.

The rating suggests that the respondents were satisfied with the indicators as measures of surveillance control. The low to moderate variability indicates fair agreement with indicators as measures of Surveillance Control in the context of human resource strategy.

Subscription to professional literature keeps practitioners abreast of the current developments in the changing concepts, systems, and practices and challenges thereof (SHRM, 2013; Sharma, 2012). This supports evidence-based management. But the gap between research and practice is reportedly large (Rynes, Giluk, & Brown, 2007). Surveillance control is research of a less rigorous type. The top-rated indicator also had a component of affiliation to professional bodies. Associations have been part of the growth and development of the HR function from the beginning of the 20th century. They capture HR trends, promote standards for qualification and practice by providing accreditation and certification, and drive HR professionalization through conduction of research, hosting of conferences, advocacy, and production of publications (Ulrich *et al.*, 2015; CIPD, SHRM, IHRM).

Compliance is the key strategic factor with professionalization. In Kenya, the human resource management's quest for professional status and identity has culminated in the enactment of the Human Resource Management Act (RoK, 2012) leading to the establishment of the Institute of Human Resource Management and the certifying body, the Human Resource Management Practitioners Examinations Board (HRMPEB). They have implications for higher education institution human resource management. The second indicator concerned internal communication mechanisms as means of monitoring. These hinted at the prominence given to Surveillance Control.

As members of top management, respondents sit at the strategic table and are thus privy to strategy content the internal communication captures. Job descriptions of the position of Registrar, as captured from the websites of some of the universities, are consistent with this argument: reporting and sitting on top level organs in their institution as well as being reported to, which in terms of human resource and operations means the entire institution.

Conferences was a source of strategic information for Surveillance Control. Conferences synthesise seemingly disparate pieces of information from diverse industries. They also provide a forum for networking among professionals, which could facilitate future recruitment efforts as well as affording practitioners an opportunity for continuous professional development (IAEA, 2010). Conferences are future-focussed as opposed to looking merely to the past; thus, they serve a monitoring role. Strohmeier (2010) agrees that conferences bring scholars and practitioners together, thus blending theory and practice, and narrowing the gap between academic research and professional practice as researchers engage more intensely with practitioners and clarify issues raised by in academic journals laced with scientific jargon (Olivas-Lujan & Rousseau, 2010).

Conferences distil emerging themes in human resource; the attendant publicity making them much easier to adopt. Conferences are also beneficial in Surveillance Control since, as Zimmer (2014) notes, enables participants to gather current industry news. The reason is that conferences are very current since they are held annually or biannually (KJSIMSR, 2018). Baron and Kreps (1999) assert that ‘For general managers to understand and be sensitive to human resource management, the basic issues in the management of human resource must be laid out in non-specialist terms, and the connections between human resource management and other concerns of general managers must be made.’

The response to each constituent indicator was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The individual indicator scores were summed up to form a composite index score, known as the surveillance control index score which summarised all the three indicators into a single numeric value for each respondent.

The index score varied from 3, indicating very low utilisation of surveillance control to 15, indicating very high utilisation of surveillance control. The higher the score, the higher was the level of utilisation of surveillance control in human resource strategy, and vice versa. The composite index score had a mean score of $\bar{x} = 10.68$ and a standard deviation of $s = 2.482$. The index score was collapsed into three ordinal categories including a score of 3-6 (low use), a score of 7-11 (moderate use) and a score of 12-15 (high use). Table 36 summarises the levels of utilisation of surveillance control in human resource strategy.

Table 36

Levels of Utilisation of surveillance control

Levels of use	Frequency	Percent
Low	1	3.2
Moderate	18	58.1
High	12	38.7
Total	31	100.0

Source: Research data

Table 36 indicates that 18 respondents, 58.1%, reported moderate utilisation of Surveillance Control, 12, 38.7%, had high utilisation, and one (1), 3.2%, rated Surveillance Control utilisation in human resource strategy control as low. Generally, therefore, human resource at universities uses Surveillance Control moderately. A possible explanation is that human resource management at universities is predominantly structured and administrative. Surveillance Control is subjective (Verano-Tacoronte & Melián González, 2008; Hitt *et al.*, 2005) and, thus, non-formulaic, intuitive, and unfocused (Lazenby, 2012).

The presence of surveillance control in human resource strategy is consistent with Society of Human Resource Management (SHRM) (2019) and Aktera *et al.* (2017). As per SHRM (2019), surveillance helps monitoring the location of employees and internet use. Aktera *et al.* (2017) found surveillance among the basic requirements at the modern-day workplace. University strategic plans are strong on the strengths, weaknesses, opportunities, and threat (SWOT) and political, economic, social, technological, environmental, and legal (PESTEL) analyses but do not specifically name Surveillance Control. Yet surveillance, in theory, is less formal compared to SWOT and PESTEL.

Employee monitoring could also yield benefits for forestalling unrest, burn out, turnover, and competitor moves in such areas as reward management. And in the wake of terror attacks at workplaces in Kenya in the recent past, surveillance will assume greater importance. Zimmerman (2002) notes the instrumentality of HR in assuring legal compliance of surveillance mechanisms. But surveillance is a minefield. ECDC (2020), Marano and Plikaytis (2004), and Privacy International (2016) note the word surveillance itself carries negative connotations. Moro *et al.* (2019) argue that internal surveillance almost automatically has implications for the emotive question of employee monitoring.

MacRae and Murphy (2017) agree that internal surveillance is fraught with challenges as it could be interpreted as spying on employees. Patro (2016) observes that members of faculty are ‘free spirits’, an attribute that could make them very sensitive to surveillance. To better harness the benefits of surveillance, Bartels and Nordstrom (2012, as cited by MacRae and Murphy, 2017), suggest clarification of the purpose of internal surveillance and set the process within an overall performance framework. In this, communication to employees is imperative.

Finally the study measured special alerts control. Purpose of strategic thinking and action is to forestall the element of surprise attack or failure. Strategists need to be on the look-out for onset of adverse events that could emerge unannounced. This is the purpose of special alerts control. It tracks unexpected changes in the general environments that could hurt the organisation. It guides the need to thoroughly and often rapidly reconsider the firm's basic strategy due to a sudden, unexpected event produced by the fast-paced dynamism in the complex environment (Lazenby, 2012). Special alerts control zeroes in on recognizable yet unlikely events. Elements of Special Alerts Control are adapted in the as a dimension of human resource strategy control. Special alerts come from surveillance. According to McConchie (1998), Pebble (1992) was the first to conceptualise Special Alerts Control.

In this study, three indicators were used to measure utilisation of Special-alerts control as a dimension of human resource strategy. The three indicators generally capture the following aspects of the dimension: human resource trigger mechanism; human resource contingency plans; and future human resource scenarios. Each indicator of Special-alerts control was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 37 depicts the distribution of the rating the utilisation of each indicator of Special-alerts control.

Table 37*Rating of utilisation of special alerts control*

Indicator	M	SD	CV
Current HR plan profile unexpected HR events	3.35	1.018	30.4%
HR plans include mechanisms to deal with unexpected, adverse events	3.35	1.018	30.4%
HR plans detail HR possible events in the future	3.32	0.979	29.3%

Source: Resewarch data

Table 37 depicts how the respondents rated the utilisation of all the three indicators of Special-Alerts control in relation to human resource strategy control. The above average mean scores ranged from $\bar{x}_1 = 3.32$ ($S_1 = 0.98$) to $\bar{x}_3 = 3.35$ ($S_3 = 1.02$). Two indicators were rated identically as follows: ‘Current HR plan profile unexpected HR events’, $\bar{x}_3 = 3.35$ ($S_3 = 1.02$) with a coefficient of variation of 30.39%; and ‘HR plans include mechanisms to deal with unexpected, adverse events’, $\bar{x}_2 = 3.35$ ($S_2 = 1.02$) with a coefficient of variation of 30.39%. Next was the indicator ‘human resource plans detail human resource scenarios’ $\bar{x}_1 = 3.32$ ($S_1 = 0.98$) with a coefficient of variation of 29.49%. The rating suggests that the respondents were fairly satisfied and conversant with the utilisation of the indicators of special alerts control in human resource strategy.

The rating on uncertainty is consistent with a number of sources among them Society for Human Resource Management (SHRM) (2020), Dawood and Abba (2018), UNDP (2018), CUK (2017), Yadav, 2011), Hiltunen (2010), Yabs (2010), Aswathappa (2008), and Digman (2003). Yabs (2010) observes that special alerts control is futuristic and enables avoidance of surprises, and according to Yadav (2011) and Digman (2003) the capturing of weak signals is particularly pertinent.

Weak signals subtly convey information about trends. Thus, Top management sense-making and sense-giving is imperative. But modes of capturing signals, particularly the weak signals, are neither specified nor spelt out in strategic plans although risk is mentioned (Co-operative University of Kenya, 2017). According to SHRM (2020) human resource triggers include workplace violence, ethics and governance issues, reputational damage, and turnover. Aswathappa (2008) notes recruitment and selection processes are prone to the creeping in of false negatives and false positives. Thus, Hiltunen (2010) observes, employees are instrumental in collecting weak signals. But according to the United Nations Development Programme (2018) reports, early warning systems themselves are prone to challenges emanating from human resource.

The rating of contingency planning is consistent with Inter-agency Network for Education in Emergencies (2020), Moturi and Chege (2014), and Digman (2003). According to Inter-agency Network for Education in Emergencies (2020), contingency planning is an on-going process to reflect upon and prepare for various emergency scenarios. Inter-agency Network for Education in Emergencies (2020) further recommends the process should be participatory (employee involvement) but expert-led. According to Digman (2003), contingency plans counter strategic surprises.

Areas of contingency planning include natural disasters, mismanagement, crises such as hurricanes, fires, and earthquakes; crises, data loss. Personnel events such as death of a senior manager, or union members going on strike call for contingency planning. In relation to data loss, Moturi and Chege (2014), however, found that some universities were yet to have contingency plans in the vulnerable function of management information systems in an organisation.

The rating of scenario planning is consistent with Al-Ahliyya and Al-Ahliyya (2019), Ogilvy (2015), Sayers (2010), Chermack (2003), and Ringland (1998) among others. Scenario planning attempts to eliminate the two most common errors made in any strategic analysis - overprediction and underprediction of the company's future. Ringland (1998) notes that scenarios are stories about the future that help people break through mental blocks and assumptions. They are ideal in positioning employees for change, a view Chermack (2003) supported by arguing scenarios facilitate learning and alteration of mental models.

Ogilvy (2015) provides critical terminology in scenario analysis and planning among them: focal issue(s); key factors; external forces; critical uncertainties; scenario logics; scenarios; implications and options; and early indicators. Sayers (2010) found scenario planning most successfully used to inform upcoming strategic planning in some higher education institutions. Analyses by Al-Ahliyya and Al-Ahliyya (2019) indicate that scenario planning does, and can play a considerable role contributing in strategy making process and content. Gregório *et al.* (2014) found scenario planning useful in healthcare workforce planning in Portugal. This study did not come across stand-alone human resource plans in universities.

The response to each constituent indicator was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The researcher summed up scores of individual indicator to form a composite index score, known as the Special-alerts control index score which summarised all the three indicators into a single numeric value for each respondent. The index score varied from 3, indicating very low utilisation of Special-alerts control to 15, indicating very high utilisation of special-alerts control. The higher the score, the higher was the level of utilisation of Special-alerts control in human resource strategy, and vice versa.

The composite index score had a mean score of $\bar{x} = 10.03$ and a standard deviation of $s = 2.799$. The index score was collapsed into three ordinal categories including a score of 3-6 (low use), a score of 7-11 (moderate use) and a score of 12-15 (high use). Table 38 summarises the levels of utilisation of Special-alerts control in human resource strategy.

Table 38

Levels of Utilisation of Special Alerts Control

Levels of use	Frequency	Percent
Low	7	22.6
Moderate	12	38.7
High	12	38.7
Total	31	100.0

Table 38 indicates that 12 respondents, 38.7%, reported high utilisation of Special-Alerts Control, 12 respondents, 38.7%, had moderate utilisation, and seven (7) respondents, 22.6 percent, had low utilisation. This suggests that in higher education institutions, the incidence of special alerts control ranges from moderate to high. As knowledge centres, universities are well-placed to monitor and discuss events that are emerging and their implications. Strategic planning is said to be academic in nature; thus, its concepts resonate well with academic environment. Majority of respondents for this study were academicians, at least by training.

Special Alerts is about being proactive, for example to deal with recruitment and selection problems in the wake of risks such as fraud in credentials or even terror attacks. This finding is consistent with Liz-Dom'inguez, *et al.* (2019), Dawood and Abba (2018), Athamneh (2018), and Hanover Research (2014) among others. According to Liz-Dom'inguez, *et al.* (2019) and Hanover Research (2014), what they refer to as 'Early Alert', 'Early Warning Systems' are common in tracking student absenteeism and performance.

Dawood and Abba (2018) observed that strategic alertness related to operational performance. According to Athamneh (2018) training is vital for human resource in crisis management. Universities in the United States have policies on emergencies and unexpected events such as has an administrative policy on emergencies (University of Minnesota 2020; University of Iowa, 2020).

But special alerts control has limitations. du Toit (2015) showed how the game of rugby illustrated challenges with special alerts control as fierce competition and manoeuvres of players on the field took unexpected turns. Marshall and Alexander (n.d) found planning for personnel risks is neglected by small and medium businesses. According to Larson, Vroman, and Makarius (2020), no amount of preparation could have enabled the sound management of (newly) remote workers in the wake of the Corona Virus Disease (COVID-19) pandemic. For as Mike Tyson is widely quoted to have remarked (Berardino, 2012): Everybody has a plan until they get punched in the mouth.

The study then determined overall utilisation of human resource strategy control. The response to each constituent indicator of each dimension of human resource strategy control (tables 34 through 37) was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. Since human resource strategy is a complex and multi-dimensional concept captured by the four dimensions with a total of 14 indicators, it was measured by a composite index score, known as utilisation of human resource strategy control index score. The individual scores of the 14 indicators of the four dimensions for each respondent were summed up to form an overall use of human resource strategy control index score for each respondent (reliability coefficient, $\alpha = .889$).

The overall composite index score varied from 14, indicating very low utilisation, to 70, indicating very high utilisation of human resource strategy control. The higher the score, the higher was the overall level of utilisation of human resource strategy control, and vice versa. The index score had a mean score of $\bar{x} = 51.16$ and a standard deviation of $s = 8.741$. The score was later collapsed into three ordinal categories in order to differentiate between the levels of utilisation of human resource strategy control among the sampled respondents. The levels included a score of 14-32 (low use), a score of 33-51 (moderate use) and a score of 52-70 (high use). Table 39 summarises the overall levels of utilisation of human resource strategy control.

Table 39

Overall Levels of Utilisation of human resource strategy control

Levels of use	Frequency	Percent
Low	1	3.2
Moderate	17	54.8
High	13	41.9
Total	31	100.0

Table 39 indicates that 54.8% (17) of the respondents had moderate utilisation of human resource strategy control, 41.9% (13) had high utilisation, and 3.2 percent (1) had low utilisation. This suggests that predominantly utilise human resource strategy control moderately. This could be attributed to the fact that human resource management is a management function and human resource strategy is a functional level strategy. Accordingly, management control systems assume a more central role compared to strategic control. It is also arguable that conceptual confusion could be a factor; practitioners may be tempted to apply strategic control and management control systems interchangeably.

4.3.2.2 Test of Hypothesis Two

Objective two was accompanied by the null hypothesis two which stated that: there is no significant relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya. The assumption is that the higher the utilisation of the human resource strategy control, the higher is the level of performance of an organisation, and vice versa. The study used the Pearson's Product Moment Correlation Coefficient (r) and regression (r^2) to establish the association of the variables, that is, human resource strategy control (independent variable) and performance (dependent variable).

The study first established the significance of correlation between the independent and the dependent variable. Pearson's Product Moment Correlation Co-efficient (r) was used in this study to determine the strength and the direction of influence (relationship) between human resource strategy control and performance of an organisation. The utilisation of human resource strategy control index score and performance index score were used. On the basis of the expected association, the human resource strategy control index score (and the indices of its dimensions) was the independent variables, while performance index score was the dependent variable. Table 40 summarised the correlation coefficient matrix of human resource strategy control and performance of human resource strategy in an organisation.

Table 40*Correlation Coefficient of second predictor and criterion*

		Performance index score
Overall utilisation of human resource strategy control index score	<i>R</i>	.714**
	Sig. (2-tailed)	.000
	N	31
Premise control index score	<i>R</i>	.546**
	Sig. (2-tailed)	.001
	N	31
Surveillance control index score	<i>R</i>	.716**
	Sig. (2-tailed)	.000
	N	31
Implementation control index score	<i>R</i>	.580**
	Sig. (2-tailed)	.001
	N	31
Special-alerts control index score	<i>R</i>	.402*
	Sig. (2-tailed)	.025
	N	31

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 40 indicates that overall, there was a strong (high) positive correlation between the utilisation of human resource strategy control and performance of human resource strategy in universities, $r(29) = .71$, $p\{0.000\}$. And as $p\{0.000\} < 0.001$, which is less than the hypothesised level of significance, we reject the null hypothesis and conclude that there was a significant relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya.

In addition to the overall relationship, the study also established the relationship between individual dimensions of utilisation of human resource strategy control and performance of human resource strategy in universities. The table indicates that there was a moderate positive correlation between the utilisation of premise control and performance of human resource

strategy, $r(29) = .546, p\{0.001\}$. The positive correlation between the two variables suggests the higher the utilisation of premise control in human resource strategy, the higher is the level of performance of the human resource strategy, and vice versa. Since, $p\{0.001\} < 0.01$, we reject the null hypothesis and conclude that there was a significant relationship between utilisation of premise control in human resource strategy and performance of human resource strategy in universities in Kenya. Interpret the results and link it to literature review.

Table 40 indicates that there was a strong positive correlation between the utilisation of surveillance control in human resource strategy and performance of human resource strategy, $r(29) = .72, p\{0.000\}$. The positive correlation between the two variables suggests the higher the utilisation of surveillance control in human resource strategy, the higher is the level of performance of an organisation, and vice versa. The practical level of significance $p\{0.000\}$ is less than the hypothesised $p\{0.05\}$. Consequently, we reject the null hypothesis and conclude that there was a significant relationship between utilisation of surveillance control in human resource strategy evaluation and performance of human resource strategy in universities in Kenya.

Table 40 further indicates that there was a moderate positive correlation between the utilisation of implementation control in human resource strategy and performance of human resource strategy, $r(29) = .58, p\{0.001\}$. The positive correlation between the two variables suggests the higher the utilisation of implementation control in human resource strategy, the higher is the level of performance of an organisation, and vice versa. Since, $p\{0.001\} < 0.01$, we rejected the null hypothesis and conclude that there was a significant relationship between utilisation of implementation control in human resource strategy and performance of human resource strategy in universities in Kenya.

The table further indicates that there was a moderate positive correlation between the utilisation of Special-alerts control in human resource strategy and performance of human resource strategy, $r(29) = .40, p\{0.025\}$. The positive correlation between the two variables suggests the higher the utilisation of Special-alerts control in human resource strategy, the higher is the level of performance of an organisation, and vice versa. Since, $p\{0.025\} < 0.05$, we rejected the null hypothesis and conclude that there was a significant relationship between utilisation of Special-alerts control in human resource strategy and performance of human resource strategy in universities in Kenya.

From the significant and positive association of the variables using correlation analysis, the study determined the contribution of utilisation of human resource strategy control (independent variables) and performance of human resource strategy in universities (the dependent variable). As indicated in Chapter Three, the regression analysis was based on a stochastic regression model given by $y = a + \beta_2x_2 + e$ and tested at $\alpha = 0.05$ significance level (95% confidence level). The regression results are summarised in Tables 41, 42 and 43.

Table 41

Regression Model Summary for second predictor and criterion

R	R Square	Adjusted R Square	Std. Error of the Estimate
.714 ^a	.510	.493	5.959

a. Predictors: (Constant), Utilisation of Human Resource Strategy Control

From Table 41, coefficient of determination (r^2) for the contribution of the overall utilisation of human resource strategy evaluation on the performance of human resource strategy was, $R^2 = .49$. The regression model indicates that the independent variable (utilisation of human resource strategy control) explained or accounted for 49% of changes in the level of performance of human resource strategy. This therefore means that other variables (factors) not included in this study contributed the remaining 51% of changes in the level of performance of human resource strategy.

After establishing the contribution of the independent variable on the dependent variable (based on R and R^2), it was important to determine whether this influence (regression model) was significant or not. This was done using Analysis of Variance (ANOVA) – F-test to check the overall significance of the regression model. If the calculated p value is less than the significance value α then the regression model is considered significant, and vice versa. Table 42 summarises the significance of the influence of the independent variable on the dependent variable using the F-test.

Table 42

Analysis of Variance F-Test Results for second predictor and criterion

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1071.196	1	1071.196	30.170	.000 ^b
	Residual	1029.643	29	35.505		
	Total	2100.839	30			

a. Dependent Variable: Performance of Human Resource Strategy

b. Predictors: (Constant), Utilisation of Human Resource Strategy Control

From the Table 42, since $F(30) = 30.17$ and $p\{0.000\} < 0.01$, then it was concluded that the regression model was statistically significant in predicting the influence of utilisation of human resource strategy control (independent variable) on performance of human resource strategy (dependent variable). To derive the regression model, Table 43 summarises the regression coefficients of the independent variable and dependent variable.

Table 43

Regression model Coefficients for first predictor and criterion

Model	Unstandardised Coefficients		Standardised Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	13.832	6.457		2.142	.041
HRSC index score	.684	.124	.714	5.493	.000

a. Dependent Variable: Performance

Table 43 gives the regression coefficient (β) of the independent variable. The β measures the amount of change in the dependent variable associated with one unit change in the independent variable. From the table, the independent variable had a positive regression coefficient $-(\beta)$ - value suggesting that it had a positive influence on (relationship with) performance. From the t-values, each independent variable had a significant and positive influence on the dependent variable. Overall, the regression results indicate human resource strategy evaluation significantly predicted performance of the human resource strategy, $R^2 = .510$, $F(1, 30) = 30.17$, $b = .71$, $t(29) = 5.493$, $p < .01$.

From the positive sign of the standardised regression coefficients (β), the direction of the relationship was inferred. Substituting these standardised regression coefficients (β) in the regression model of $y = a + \beta_2x_2 + e$, (where, y = performance of human resource strategy control (dependent variable), a = constant, β_2 = regression coefficient of the human resource strategy control, x_2 = human resource strategy control (independent variable), and e = error term), we have: $y = 13.83 + .71HRSC + e$.

The significance of human resource strategy control is consistent with a number of authors. Among these Pratistha (2016), Nazaripour and Parvizi (2011), Anthony and Govindarajan (2004), Liao (2006) Verano-Tacoronte and González (2008), Digman (2003), McConchie (1998), Robinson & Pearce (2003), Bedford *et al.* (2016), Kreutzer *et al.* (2015). Bedford *et al.* (2017), emphasised fit among structural control choices, strategic control included, as well as their fit with strategic context. Nazaripour and Parvizi (2011) showed that strategic control enhances performance, lending credence to the role of human factor. Anthony and Govindarajan (2004) agree that controls are about people, thus establishing the vitality of human resource strategy control.

According to Liao (2006), strategic control is more effective when aligned with human resource control mechanism. Verano-Tacoronte and Melián González (2008) reported that behavior-based control was directly related to firm success, measured by outcomes and behaviors. The significance of human resource strategy control is, however, also inconsistent with some literature. This includes Lopez-Valeiras *et al.* (2018), Bušina and Šikýř (2014), Armesh, Salarzahi and Kord (2010), Ondoro (2017), Lin *et al.* (2017), Armesh *et al.* (2010), Aswathappa (2008), Bernadin (2007), McConchie (1998), Langfield-Smith (1997), and Mintzberg (1993).

According to Lopez-Valeiras *et al.* (2018), control is about behavior of employees; hence it is prone to reactions. Ondoro (2017) found empirical evidence on strategic control lacking. Lin *et al.* (2017) reported a negative relationship between strategic control and performance. For Bernadin (2007), non-measurability of human resource management practices is problematic. McConchie (1998) opines a rigorous strategic control evokes a picture of a rigid, bureaucratic, planning organisation; a position Aswathappa (2008), echoes noting human resource management is replete with paradoxes among them confusion regarding human resource management caring versus controlling. Langfield-Smith (1997), seemed to make the argument that the separation of strategic and management controls was untenable. And in criticising planning, Mintzberg (1993) refutes the notion of control as illusory.

The literature reviewed above relates to strategic control generally rather than to human resource strategy control in particular. The reason for this is limited research and reporting in this aspect of strategy. This in turn could be due to failure of implementation of strategy so that there is little to control. It is evident also that a lot of literature focuses on operational control and there is a lot of lazy interchangeability in the use of strategic, management and operational controls.

4.3.3 Findings for Objective Three

The third objective of this study sought to determine the mediating effect of information characteristics on the relationship between utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya. It is a third variable with a transmitting role. 'Information characteristics' has implications on evaluations. As in all decision-making evaluation requires information (Bubel & Cichoń, 2017; Frishammar, 2003). By definition, evaluations are information-based (UNDP, 2009).

Indeed, evaluations are about collecting data and making judgement about phenomena of interest. As Poz *et al.* (2009) observed, development of an evaluation framework entails among other things, identification of types of data to feed evaluation processes. And data has implication on information and its characteristics. Most evaluations, however, are retrospective in orientation; strategic evaluation, ideally, needs to be prospective, which is always a challenge in complex, uncertain, and high-velocity change contexts.

According to Aguinis *et al.* (2016), mediation suggests an intervening variable or underlying process that transmits the effect of the predictor on the criterion. The underlying mechanism is learning, anchored on the linkage between data, information, knowledge, wisdom model. The result of the process of learning facilitates strategic decision-making, in this case human resource strategy evaluation. The process is intricate, entailing information/knowledge gathering and sharing. In the face of information explosion and implosion, effective use of this resource requires its proper characterisation. Literature review reveals that scholarly attention has scarcely been paid to information characteristics as mediating the relationship between human resource strategy evaluation and performance of human resource strategy in higher education institutions in Kenya.

In the first objective, the study established the direct relationship between human resource strategy evaluation and the performance of the human resource strategy. In this section the researcher first examined the utilisation of information characteristics before controlling for its effects so as to determine its mediational association with human resource strategy evaluation and performance.

4.3.3.1 Utilisation of Information Characteristics

The complexity and multi-dimensionality of information characteristics as a concept in an organisational study is evident even if the concept is not named as such. The concept has three dimensions according to levels of information: strategic information; tactical information; and operational information. The study adopted the three dimensions to reflect and capture the full complexity of the concept of information characteristics. The study examined each of these dimensions separately and cumulatively. The dimensions varied in the number of indicators: strategic information had five; tactical information had four; and operational information had three. Indicators derived identified for each dimension were converted into a set of generic statements to elicit responses concerning information characteristics.

The sampled 31 respondents were asked to rate the level of utilisation of indicators of each dimension in their institution. The respondents rated their utilisation of each indicator on a five-point Likert scale ranging from 1 to 5, where 1 meant strongly disagree (SD), 2 was disagree (D), 3 indicated uncertain (U), 4 was agree (A) and 5 meant strongly agree (SA). The higher the score, the higher was the level of utilisation of the indicator in their institution, and vice versa. The measurement of each dimension of information characteristics is discussed below.

The study measured the notion of strategic information characteristics. Information systems and their attributes are hierarchically arranged. This corresponds with the hierarchy in organisations (Barnat, 2018). Strategic information pertains to what institutions do or should do. Strategic information as a dimension of information characteristics in human resource sits at the apex of the information hierarchy.

In this study, five indicators were used to measure utilisation of strategic information. The five indicators generally capture the following aspects of the dimension: external focus and long-term orientation; internal context represented by vision, mission, goals, and objectives; cost of information infrastructure; ratio of qualitative and quantitative data; and integration.

Each indicator of strategic information was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 44 depicts the distribution of the rating the utilisation of each indicator of strategic information.

Table 44

Indicators of Strategic Information Characteristics

Indicator	M	SD	CV
External and long-term HR information is given prominence	4.19	0.75	17.9%
HR has access to information on goals, current situation, and problems	4.13	0.76	18.3%
Management information infrastructure is robust and cost effective	3.87	0.81	20.8%
Presentation of qualitative and quantitative information is balanced	3.84	0.86	22.4%
The human resource information system is linked to other information systems	3.55	1.29	36.3%

Source: Research data

Table 44 shows how the respondents rated the utilisation of all the five indicators of strategic information. The above average mean scores ranged between $\bar{x}_1 = 3.55$ ($S_1 = 1.29$) and $\bar{x}_5 = 4.19$ ($S_5 = .76$).

The respondents rated highest the indicator ‘External and long-term HR information is given prominence’, $\bar{x}_5 = 4.19$ ($S_5 = .76$) with a coefficient of variation of 17.88%. Next was the indicator ‘HR has access to information on goals, current situation, and problems’, $\bar{x}_4 = 4.13$ ($S_4 = 0.76$) with a coefficient of variation of 18.47%. Thirdly rated was the indicator ‘Management information infrastructure is robust and cost effective’, $\bar{x}_3 = 3.87$ ($S_3 = 0.81$) with a coefficient of variation of 20.83%. Respondents rated fourth the indicator ‘Presentation of qualitative and quantitative information is balanced’, $\bar{x}_2 = 3.84$ ($S_2 = 0.86$) with a coefficient of variation of 22.40%. And lastly ‘The human resource information system is linked to other information systems’, $\bar{x}_1 = 3.55$ ($S_1 = 1.29$) with the highest yet moderate coefficient of variation of 36.25%.

The above average means as well as the low-to-moderate variability suggests two things: one, that the respondents were agreed on the five indicators as measures of strategic information characteristics; and two, they were fairly satisfied with the utilisation of the indicators of strategic information characteristics in their institutions. These are important findings for theory development given that literature reviewed has not established this line of treatment of human resource strategy evaluation in higher education. Strategic information characteristics correspond with the strategic level of information that captures the status of strategic factors: concern with environment; long-term focus; top management involvement; multi-business issues; significant resources; and huge consequences (Robinson & Pearce, 2005).

These findings are consistent with Guerrero and Sierra (2018), Nezakati *et al.* (2014), Hasan *et al.* (2011), and Porter and Millar (1985) among others. According to Guerrero and Sierra (2018), use of information system has evolved from keeping historical record to a support tool in decision-making; the evolution proceeding from Transactional to Tactical Analytical to

Strategic to Advanced and to Innovative. Nezakati *et al.* (2014) find useful the following attributes related to information system's maturity: top management participation and commitment; chief executive officer and chief information officer relationship; environmental assessment; systems thinking; and strategic thinking. These yield strategic information. Hasan *et al.* (2011) found that using the Strategic/Tactical Decision-Information Framework, 21 strategic and 17 tactical decisions based on 32 strategic and 41 tactical type of information have the potential to be coordinated within the rapid manufacturing supply chain. Hasan *et al.* (2011) identified 1 decision type and six types of information as being both strategic and tactical. Porter and Millar (1985) have asserted that companies that anticipate the power of information technology will be in control of events.

Dynamism in the external environment has acquired prominence for universities in the new millennium (Altbach, 2019). Yet strategists have rarely ranked these factors. Executive Information Systems are designed to deal with strategic information that is characterised as follows: is both internally and externally sourced; is summarised; is relevant to the long term; concerns the entire organisation; and is both qualitative and quantitative (O'Brien *et al.*, 2009). Thus, human resource planning begins with environmental analysis.

The response to each constituent indicator was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The individual indicator scores were summed up to form a composite index score, known as the strategic information index score which summarised all the five indicators into a single numeric value for each respondent (reliability coefficient, $\alpha = .784$).

The index score varied from 5, indicating very low utilisation of strategic information to 25, indicating very high utilisation of strategic information. The higher the score, the higher was the level of utilisation of strategic information, and vice versa. The composite index score had a mean score of $\bar{x} = 19.58$ and a standard deviation of $s = 3.160$. The index score was collapsed into three ordinal categories including a score of 5-11 (low use), a score of 12-18 (moderate use) and a score of 19-25 (high use). Table 45 summarises the levels of utilisation of strategic information.

Table 45

Levels of Utilisation of Strategic Information Characteristics

Levels of use	Frequency	Percent
Low	0	0.0
Moderate	11	35.5
High	20	64.5
Total	31	100.0

Source: Research data

Table 45 indicates that, 20 of the respondents, 64.5%, had high utilisation of strategic information and 11, 35.5%, had moderate utilisation of strategic information. None reported low utilisation. This suggests that respondents have moderate to high awareness about the role of strategic information in their institutions, and by extensions the strategic factors implied in the information. Respondents were senior members of management for whom strategic thinking is near automatic. Some job descriptors of the position of the Registrar are germane to strategic information: advise top management; provide secretariat services to committees of the University Management Board and Senate...; Senate membership; and Secretary to University Management Board.

Job descriptions go with corresponding job specifications. Among the job specifications were ‘an excellent understanding of the issues in the wider higher education environment and of the challenges facing departments...’ and ‘ability to digest and process information into a succinct, well-crafted report or set of minutes...’. Furthermore, environmental pressures and dynamism such as globalisation continue to engender consciousness about sustainability.

These results are consistent with increasing investment by institutions in executive decision Support systems or executive information systems to manage voluminous and rapidly emerging strategic information quickly and cost-effectively. Yoshikuni and Albertin (2018) also found that effective use of strategic information systems facilitated strategic orientation and creation of a number of benefits that contributed to firm performance even in volatile operating environments. Gikang’a (2016) found regression and correlation results that supported a positive and significant relationship between executive management information system and strategic decision making among tea factories in Kenya.

Ahlam *et al.* (2016) find that strategic information system characteristics namely reliability, cost, time, and flexibility, are strongly, positively, and significantly related to customer service quality. According to Hussin *et al.* (2018) strategic information management dimensions has three dimensions: organisational; information infrastructure; and technology infrastructure. Overall, top managers deal with strategic information for strategic analysis, choice, and action. It is argued, however, that information management is traditional, internally, and process-focused rather than externally-focussed and mission-oriented with direct client or customer contact (Mohamed & Richardson, 2007). Yoshikuni and Albertin, (2018) agree that not all firms use strategic information systems in the same way to improve business strategy.

Guerrero and Sierra (2018) find that most human resource information systems are still basically at the transactional and tactical stages of their evolution. Altarawneh and Al-Shqairat (2010) established the primacy of top management support as a factor for successful implementation of human resource information system; however, Kovach and Cathcart (1999) found it lacking. Also, present is difficulty in changing organisation culture, which would appear to challenge the utilisation of computerised strategic information in human resource strategy evaluation (Kovach & Cathcart, 1999).

Human resource information system in universities is generally still used to perform traditional human resource roles, administration. The concept of strategic human resource information system has yet to make entry into management literature. As Knox (2014) observes, information strategy concept is not widespread in higher education. Hussin *et al.* (2018) found lacking strategic information management in the context of the Malaysian environment. The study measured tactical information characteristics. Traditionally, organisational activities get carried out at three levels: strategic; tactical; and operational. Middle management utilises tactical information to plan projects, that is, in laying out how to do things. Tactical information is relevant to the short and medium term, describes or analyses activities or departments, is prepared routinely and regularly, is based on quantitative measures such as cash flow forecasts, budgetary control or variance analysis reports, and is specialist-oriented, detailed, and reactive.

The researcher used four indicators to measure utilisation of tactical information. The four indicators generally capture the following aspects of the dimension: storage, access, and retrieval; automation; routine, regularity; and decision-making. Each indicator of tactical information was presented in a statement form. The respondents rated their utilisation of each

statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 46 depicts the distribution of the rating the utilisation of each indicator of tactical information.

Table 46

Rating of Utilisation of Indicators of Tactical Information Characteristics

Indicatore	M	SD	CV
Mechanisms for timely information storage, access and retrieval and access are specified	4.13	0.86	21.4%
Human resource information system is automated and robust	4.10	0.91	22.2%
Deadlines for major informational activities are specified and met	4.06	0.93	22.9%
HR decisions at all departments are linked to specified high quality data/information	3.87	1.06	27.3%

Source: Research data

Table 46 shows how the respondents rated the utilisation of all the four indicators of tactical information, the above average mean scores ranging between $\bar{x}_1 = 3.87$ ($S_1 = 1.06$) and $\bar{x}_4 = 4.13$ ($S_4 = 0.89$). They rated the individual indicators as follows: ‘Mechanisms for timely information storage, access and retrieval and access are specified’, $\bar{x}_4 = 4.13$ ($S_4 = 0.89$) with a coefficient of variation of 21.43%; ‘Human Resource Information System is automated and robust, $\bar{x}_3 = 4.10$ ($S_3 = 0.91$) with a coefficient of variation of 22.15%; ‘Deadlines for major informational activities are specified and met’, $\bar{x}_2 = 4.06$ ($S_2 = 0.93$) with a coefficient of variation of 22.88%; and ‘HR decisions at all departments are linked specified, high quality information’ $\bar{x}_1 = 3.87$ ($S_1 = 1.06$) with a coefficient of variation of 27.29%.

The rating suggests agreement among respondents with the four indicators as measures of tactical information as well as their relevance within the higher education context. Storage, access, retrieval, is the hallmark of bureaucratic organisations that universities have become (Martin, 2016; Ginsberg, 2011). Human resource had near perfected this as manual systems are not uncommon with massive registries still kept. Automation continues to expand but human resource are said to be only dimly aware of it (Tobenkin, 2019). Timeliness in information was ranked third.

Data quality was ranked fourth: Human resource information systems are a category of management information systems to which designers must ensure presence of commonly discussed features of high-quality information: timely; flexible; speed of retrieval; storage; accuracy; completeness; cost-effective (Alshikhi & Abdullah, 2018). Often, a lot of data is of poor quality; and human resource invariably more concerned with record keeping than analytics (Altarawneh & Al-Shqairat, 2017).

The response to each constituent indicator was scored on a scale of 1 (very low utilisation) to 5 (very high utilisation). The individual indicator scores were summed up to form a composite index score, known as the tactical information index score which summarised all the four indicators into a single numeric value for each. The index score varied from 4, indicating very low utilisation of tactical information to 20, indicating very high utilisation of tactical information. The higher the score, the higher was the level of utilisation of tactical information, and vice versa. The composite index score had a mean score of $\bar{x} = 16.16$ and a standard deviation of $s = 3.14$. The index score was collapsed into three ordinal categories including a score of 4-9 (low use), a score of 10-14 (moderate use) and a score of 15-20 (high use). Table 47 summarises the levels of utilisation of tactical information.

Table 47*Levels of Utilisation of Tactical Information Characteristics*

Levels of use	Frequency	Percent
Low	1	3.2
Moderate	8	25.8
High	22	71.0
Total	31	100.0

Source: Research data

Table 47 indicates that 22 of the respondents, representing 71%, had high utilisation of tactical information, eight (8), representing 25.8 percent, had moderate utilisation, and one (1), 3.2 percent, reported low utilisation of tactical information. High tactical levels of use suggest the proximity of tactical organisational activities to the respondents. Human resource management is tactical and falls under the ambit of the Registrar (administration). The rating also suggests the crystallisation of the human resource management function as a management function whose decision-making is based on tactical information.

Hasan *et al.* (2011) observe that tactical decision and information focus on the ‘how’ of strategic decisions. Human resource strategy itself is implementational in nature, giving effect to business level strategy. Human resource management practices, namely, acquisition of people (human resource planning, recruitment, selection, placement and onboarding); maintenance of people (reward and benefits, training and development, performance management, motivation, employee relations); and separation with people (retirements, layoff, retrenchments, dismissals, resignations deaths) are considerably information-dependent.

Tactical information is the domain of the management information systems of which Human resource information system is constituent. This system generates internal information. Samer and Rawan (2018) found that there was a positive correlation along with a statistically significant impact of management information system on decision-making process effectiveness, with the information characteristics of quality, flexibility, timeliness, and accessibility with timeliness emerging the strongest criteria.

Oliver (1999, as cited by Edeja *et al.*, 2017) posits that information communication technology is the science that investigates the properties and behavior of information, the force governing the flow of information and the means of processing information for optimum accessibility and usability. The process includes the originations, collection, storage, retrieval, interpretation, dissemination and use of information. Orlikowski (1992, as cited by Thakur, n.d.) asserts that nothing is more central to an organisation's effectiveness than its ability to transmit accurate, relevant, and understandable information.

But the human resource information system is apparently predominantly still manual. In a vacancy advertisement for the position of Registrar (Administration & Planning) in the year 2019, a university provided among others the following as a job specification: should have knowledge and understanding of computerised management information systems, applications and tools. But the mode by which applicants were to submit their applications appeared to contradict this specification: applicants must submit ten (10) hard copies of application letters giving details of their age, education and professional qualifications, detailed work experience. Of the sampled advertisements, none required a wholly electronic application method. This was the case for all categories of universities, which, then, contradicts the high rating of the automation of human resource information system.

The study measured operational information characteristics. Operational information is consumed in the performance of activities, and has the following features: almost entirely internally-sourced; highly detailed; is immediate term in focus; is task-specific; is processed very frequently; and is predominantly quantitative. And information should not be distracting. Technical knowledge is a requirement for effective use of information at this level. Its facilitative role in transaction places it in the class of information systems called transaction processing system. Located at the base of the information system pyramid, operational information in part feeds management information system which in turn partly feeds executive information system. Thus, the characteristics of operational information are strategy-critical.

In this study, three indicators were used to measure utilisation of operational information. The three indicators generally capture the following aspects of the dimension: format; frequency; and feedback. Each indicator of operational information was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 48 depicts the distribution of the rating the utilisation of each indicator of operational information.

Table 48

Rating of Utilisation of Indicators of Operational Information Characteristics

Indicator	M	SD	CV
Detailed information does not distract attention	4.13	0.89	21.4%
The specific information flow is frequent and coherent	4.06	0.81	20.1%
Mechanisms for feedback and feedforward are available, clear, and documented	3.71	0.90	24.3%

Source: Research data

Respondents rated the utilisation of all the three indicators of operational information as Table 48 indicates. The above average mean scores ranged from $\bar{x}_1 = 3.71$ ($S_1 = 0.90$) to $\bar{x}_3 = 4.13$ ($S_3 = 0.89$). According to the respondents, ‘Detailed information does not distract attention’ rated highest, $\bar{x}_3 = 4.13$ ($S_3 = 0.89$) with coefficient of variation of 21.43%. Next was the indicator ‘The specific information flow is frequent and coherent’, $\bar{x}_2 = 4.06$ ($S_2 = 0.81$) with coefficient of variation of 20.05%. Rated last was the indicator ‘Mechanisms for feedback and feedforward are available, clear, and documented’, $\bar{x}_1 = 3.71$ ($S_1 = 0.90$) with coefficient of variation of 24.31%.

The rating suggests that there is agreement among the respondents with the three indicators as measures of operational information. These findings are important for theory development given that literature reviewed has not established this line of treatment of human resource strategy evaluation in higher education. Non-distraction helps maintain focus amidst information overload. Literature to support non-distractions in management in universities is limited. Mboga, Moga, and Nyaanga (2016) found mobile devices not to be distracting in university classrooms in Kenya. Majority of studies, however, affirm the reality of distraction (Yauger, 2018; Paasonen, 2016; Bruch & Ghoshal, 2002). Yauger (2018) found interruptions and distractions common place at the workplaces. This includes in universities.

Paasonen (2016) found that attention and inattention have connection with productivity. As cited by Paasonen (2016), Veel (2011) and Andrejevic (2013) attribute this to “information overload”. Rising complexity within and outside institutions contributes to information overload, as does media-saturation. Bruch and Ghoshal (2002) found that 90% of managers squandered their time, leaving a mere 10% who displayed commitment, purpose, and reflectivity. Generally, distracted managers are disengaged.

Format implies specific ways information is organized, packaged, and distributed for use. Despite detailed, voluminous information, and continuous recording of transactions, format considerations ensure information presentation is non-distractive. This agrees with Azemi *et al.* (2017) and van Nederpelt (2011). Seo and Park (2018) investigated information features including amounts of information, its credibility, and information quality. Azemi *et al.* (2017) notes format is characteristically representational for the purpose of easing retrieval, presentation, and interpretation. van Nederpelt (2011) emphasised the features of format: relevance; completeness; appropriateness; and compliance with standards.

Alshikhi and Abdullah (2018) reiterated that in a fast-changing environment, response to the intense customer demands is imperative. Format should facilitate the reaction by following certain standards. Transaction processing systems come in handy. Strategic plans usually contain formats such implementation matrices. Human resource standard documents include leave applications and performance appraisals. However, Gorichanaz (2016) asserts that the information quality of format is given little attention in the literature.

Information flow facilitates effective communication. Communication, inter-functional and cross-functional, is the lifeblood of operations. Badau (2018) observes that every administrative function and activity involve information. In particular, Badau (2018) adds, sophisticated messages call for richer communication channels to ease interaction for the sake of clarity. Strategy evaluation, arguably, entails complex messaging. Information flow centres around giving instructions/giving advice and receiving feedback. Information flow involves evaluating which information is input and which one is output.

Universities are bureaucratic; thus, downward flows are prevalent. However, other types of information flow are not ruled out: Downward; Upward; Horizontal; Diagonal; and external. Akarika *et al.* (2017) have reported inadequate communication flow patterns within HEIs. Though rated lowest, feedback and feedforward mechanisms were still positive and above average. The low rating could be due to the combination of feedback and feedforward, the latter sometime difficult to actualise. The above average rating, though, is consistent with Wu and Nan (2019), Gorbatov and Lane (2018), Beuren and Teixeira (2014), Alafat (2013), Allan (2011). Gorbatov and Lane (2018) asserted that feedback does matter. Feedback is return of information, which is vital to bringing about desired change (Wu & Nan, 2019).

Alafat (2013) found feedback useful in building future plans. Allan (2018) reported feedback as fostering employee engagement. Ferreira and Otley (2006, as cited by Beuren and Teixeira (2014) also found that the feedback controls were widespread in all companies, since they related to more operational issues. Reviewed strategic plans indicated activities such as situational analysis having been carried out, alluding to feedforward but specifics in relation to human resource strategy not brought out.

But conceptualising and operationalising feedback and feedforward in this study was problematic. To begin with, feedback is often discussed more in relation to individual employees than on organisational units (Tagliabue *et al.*, 2020; HR Central, 2018; Osborne & Hammoud, 2017). And even in that context, Wigert and Dvorak (2019) noted that often, feedback is not dialogical. Buckingham and Goodall (2019) found rating other human behaviour problematic, often resting on fallacious assumptions. Ferreira and Otley (2006, as cited by Beuren and Teixeira, 2014), found feedforward information inadequate or altogether missing.

Feedforward, key to strategy evaluation and control, was less researched, particularly where measures of performance are qualitative and subjective. However, environmental scanning, arguably, a feedforward mechanism, was found to be part ad parcel of overall strategic planning. The intense criticism leveled against the position of human resource in organisation can be considered an informal form for of feedback. This study did not investigate forms of feedback such as their formality versus informality, formative versus summative, as well as positive versus negative.

The response to each constituent indicator was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. The individual indicator scores were summed up to form a composite index score, known as the operational information index score which summarised all the four indicators into a single numeric value for each respondent. The index score varied from 3, indicating very low utilisation of operational information to 15, indicating very high utilisation of operational information. The higher the score, the higher was the level of utilisation of operational information, and vice versa. The composite index score had a mean score of $\bar{x} = 11.90$ and a standard deviation of $s = 2.166$. The index score was collapsed into three ordinal categories including a score of 3-6 (low use), a score of 7-11 (moderate use) and a score of 12-15 (high use). Table 49 summarises the levels of utilisation of operational information.

Table 49*Levels of Utilisation of Operational Information Characteristics*

Levels of use	Frequency	Percent
Low	0	0.0
Moderate	15	48.4
High	16	51.6
Total	31	100.0

Source: Resewarch data

Table 49 indicates that 16 of the respondents, 51.6 percent, had high utilisation of operational information; 15 of them, 48.4 percent, used operational information moderately. This suggests that operational information still dominates work within Higher education institutions which in turn suggests the dominant role of the traditional human resource management practices, that is, technical or administrative human resource as compared to strategic human resource management.

Moderate to high operational information use reflects high operational information efficiency. This finding is consistency with Edeja *et al.* (2017), who find information and communication technology has significant effect on the operational functions of human resource management. This means information technology enables institutions to leverage operational information creating operational excellence to achieve operational efficiency, notably via speed and cost per capita. Operational information is executory. And generally, it is the operational information that allows for monitoring, evaluation, and control for its detail, specificity, and quantitiveness. At the operational level, the data dimensions of accuracy, integrity, consistency, completeness, validity, timeliness, and accessibility (Alshikhi & Abdullah, 2018) become emphasised.

The study then determined the overall utilisation of Informational Characteristics. The response to each constituent indicator of each dimension of ‘information characteristics’ was scored on a scale of 1, indicating very low utilisation, to 5, indicating very high utilisation. Since information characteristics is a complex and multi-dimensional concept captured by the three dimensions with a total of 12 indicators, it was measured by a composite index score, known as overall utilisation of information index score. The individual scores of the 12 indicators of the three dimensions for each respondent were summed up to form an overall use of information index score for each respondent (reliability coefficient, $\alpha = .784$). The overall composite index score varied from 12, indicating very low utilisation, to 60, indicating very high utilisation of information characteristics. The higher the score, the higher was the overall level of utilisation of information characteristics, and vice versa.

The index score had a mean score of $\bar{x} = 47.65$ and a standard deviation of $s = 7.097$. The score was later collapsed into three ordinal categories in order to differentiate between the levels of utilisation of information characteristics among the sampled respondents. The levels included a score of 12-27 (low use), a score of 28-44 (moderate use) and a score of 45-60 (high use). Table 50 summarises the overall levels of utilisation of information characteristics.

Table 50

Overall Levels of Utilisation of Information Characteristics

Levels of use	Frequency	Percent
Low	0	0.0
Moderate	11	35.5
High	20	64.5
Total	31	100.0

Source: Research data

Table 50 indicates that 64.5 percent (20) of the respondents had high utilisation of information characteristics, while 35.5 percent (11) had high utilisation. This suggests that information characteristics play a prominent role in the human resource strategy process specifically and human resource management generally. This could be attributed to the fact that the HE context is data rich; information consciousness in management is high. Discourse about information age and knowledge economy resonates well in this environment.

The finding is consistent with Almutairi (2011) and Dhillon (2000), Hussin, *et al.* (2018), and Hollander (2019) among others. Mintzberg (1973 as cited by Almutairi, 2011) argues all managerial work is glued together by the informational role. Almutairi (2011) further has privileged personal characteristics in information usage: subjectivity, clarity, unbiased, timeliness, usefulness, truthfulness, flexibility. Dillon (2000) asserts that ‘information is the lifeblood of higher education institutions’. It is a resource at par with financial and human resources. Hussin *et al.* (2018) report that regardless of industry context, the exponential growth of information in the new economy calls attention to the need for strategic information management. Hollander (2019) found benefits of information management as: optimising time; enhancing transparency; remaining compliant; and pushing down costs.

But there are inconsistencies with this finding even if the findings do not directly water down the mediational effect of information characteristics. Stuhltrager (2015) reported a study that found 83% of companies mismanaged information. Alshikhi and Abdullah (2018) have lamented poor quality information. And Edmunds and Morris (2000) report on a paradox: excessive information exists side by side shortage of useful information. A review of university strategic plans indicates that strategic information management has not been accorded adequate attention.

With rising complexity and high velocity change in the environment, the line between strategic, tactical, and operational information could be blurring. In addition, incidents of misinformation affect feedback, for example in the increasing incidents of unethical behaviour in performance reporting. It is also noticeable that in so far as information management goes, overemphasis in technology appears to eclipse the characteristics of information (content).

4.3.3.2 Test of Hypothesis Three

The third of objective in this study was accompanied by the null hypothesis that stated: information characteristics have no significant mediating effect on the relationship between the utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya. Mediation analyses require fulfilment of a number of conditions: significant relation between independent variable and dependent variable; significant relation of independent variable and intervening/mediator variable; significant relation between intervening variable and dependent variable; significant relation between intervening variable and dependent variable, and intervening variable's predictive power; and non-significance of independent variable to dependent variable in the presence of intervening variable (van Kesteren & Oberski, 2019; Kenny, 2018; Namazi & Namazi, 2015; Fairchild & MacKinnon, 2009).

In the third objective of this study the relevant variables were: human resource strategy evaluation; information characteristics (intervening variable); and performance of the human resource strategy (dependent variable). Partial correlation as well as linear regression analyses were performed to determine the presence of these conditions and to establish their effects on rejection or non-rejection of the hypothesis.

The study established the significance of correlations. Correlation analyses between human resource strategy evaluation and performance and between human resource strategy evaluation and information characteristics were performed and the results are indicated in Table 51.

Table 51

Correlation Coefficient of first predictor, mediator, and criterion

		Performance	HRSE	IC
	Pearson Correlation	1	.608**	.610**
	Sig. (2-tailed)		.000	.000
	N	31	31	31
HRSE	Pearson Correlation	.608**	1	.589**
	Sig. (2-tailed)	.000		.000
	N	31	31	31
IC	Pearson Correlation	.610**	.589**	1
	Sig. (2-tailed)	.000	.000	
	N	31	31	31

** . Correlation is significant at the 0.01 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Key: HRSE – Human Resource Strategy Evaluation; IC – Information Characteristics.

The correlations between the independent variable and dependent variable, independent variable and intervening variable, and intervening variable and performance, ($r = .61, p\{0.000\} < 0.05$), ($r = .59, p\{0.000\} < 0.05$), ($r = .61, p\{0.000\} < 0.05$) respectively were all strong and significant; yet not so high as to cause the threat of multicollinearity. Thus, the study met the first key condition for mediation analysis. Namazi and Namazi (2015) emphasise that direct relationship between independent variable and dependent variable must be significant first for any further analysis of mediation to proceed.

The study then carried out a partial correlation analysis. The researcher used partial correlation analysis to assess the contribution of the independent variable and the intervening variable to the dependent variable and thereby suggest possible causality and mediation. The procedure entailed studying the linear relationship between two variables after excluding the effect of one or more independent factors, in this case the relationship between human resource strategy evaluation and performance excluding information characteristics.

Partial correlation procedure calculates partial correlation coefficients (r) that describe the relationship between two variables (independent variable - human resource strategy evaluation and dependent variable – performance of human resource strategy) while adjusting for the effects of one or more additional variables (mediator/control variable – information characteristics). From literature review, one of the ways of controlling the effect of mediator variables is to build the extraneous variable into the study and measured along with the independent and dependent variable.

Then using a statistical procedure such as correlation and regression, one can measure the effect of the mediator variable on the original relationship between independent and dependent variable by controlling it using partial correlation control. In the the statistical package for social sciences, it entails setting up a correlation between independent variable (human resource strategy evaluation) and intervening variable (information characteristics) and inserting a control variable, in this case the mediator.

To determine the effect of the mediator variable, the study compared the correlation coefficient of the original correlation between independent variable and dependent variable (in Objective One) and partial correlation coefficient (r) after controlling the mediator

variable and regression procedures to measure the effect of the mediator variable on the direct relationship between independent and dependent variable by controlling the mediator. Partial correlation procedure calculates partial correlation coefficients (r) that describe the relationship between two variables (independent variable - human resource strategy evaluation and dependent variable – performance of human resource strategy) while adjusting for the effects of one or more additional variables (control variable – information characteristics).

To ascertain the consequence of the mediator variable, the study compared the correlation coefficient of the direct correlation and partial correlation coefficient (r) after controlling for the mediator variable. The researcher then used the comparison together with regression results to test the hypothesis.

For partial correlation used, the three variables (independent, dependent, and mediator) were quantified and measured on a continuous (ratio) scale using the generated composite index scores. Table 4.49 summarises the partial correlation coefficient matrix of human resource strategy evaluation and performance of human resource strategy while controlling for utilisation of information characteristics.

Table 52*Partial Correlation of first predictor and criterion controlling for mediator*

Control Variable			P	HRSE
Information Characteristics	Performance	Correlation	1.000	.388
		Sig. (2-tailed)	.	.034
		Df	0	28
	HRSE	Correlation	.388	1.000
		Sig. (2-tailed)	.034	.
		Df	28	0

** . Correlation is significant at the 0.01 level (2-tailed).

From Table 52, it can be observed that although there was a positive correlation between utilisation of human resource strategy evaluation and performance of human resource strategy in universities, the control variable, mediator, (role of information characteristics) had suppressed the relationship between the two variables. The suppression had contributed to a weaker positive partial correlation between human resource strategy evaluation and the performance of the human resource strategy by 22%, from $r = .61$ to $r = .39$. The positive partial correlation between the two variables suggests the higher the utilisation of the human resource strategy evaluation, the higher the level of performance of human resource strategy it occasions, and vice versa, but with mediation, at a slower rate.

The partial correlation coefficient value of $r = .39$ means that in the presence of information characteristics, every unit (100%) change in the utilisation of human resource strategy evaluation leads to a 0.39 (39%) change in the performance of human resource strategy. The significant decline in the relationship suggests mediation was taking place (Baron & Kenny, 1986, as cited Ozdil & Kutlu, 2019).

Logically, one would argue for the elimination of information characteristics from the model so as to maximise the contribution of human resource strategy evaluation on human resource strategy performance. In practice, it is not feasible. According to Knowledge Team (2014) the entire process of evaluation and control, from the start to the end, are functions of information in its adequacy and quality. Thus, the challenge that arises from this finding could have something to do with information seeking, retrieval, use and sharing on the basis of personality, contextual, and social factors (Julien, 2020).

There is limited empirical research on the suppressing role of information on performance in human resources. However, the finding above is consistent with similar views by authors on the efficacy of information attributes and information use (Vitari & Raguseo, 2016; Vogel & Hattke, 2018; Antoniou *et al.*, 2017; Abrahamson & Goodman-Delahunty, 2014; Williams, 2014; Kurnha *et al.*, 2011). Vogel and Hattke (2018) report the possibility of use of performance information being negatively related to performance. Antoniou *et al.* (2017) argue that concepts of strengths and weight of information are less understood. Strength denotes how saliently information supports a specific outcome; weight is information's predictive validity.

Bias towards strength is evident, which leads to reaction, over-reaction, or under-reaction to outcomes. Abrahamson and Goodman-Delahunty (2014) found information sharing a challenge in many organisations. Khurana *et al.* (2011) identify barriers to information sharing. In the university strategic plans surveyed no allusion was made specifically about information strategies. Knox (2015) and Williams (2014) found that there was focus on technology at the expense of information content. Vitari and Raguseo (2016) reported that huge quantities of fine-grained data overwhelm many organisations.

Williams (2014) argues that it is a fallacy to believe that expensive and complex information systems will deliver valuable knowledge; there is semantic confusion among data, information, knowledge, and wisdom. Williams (2014) as well as Baškarada and Koronios (2013) consider conceptual confusion to be a challenge to information use. Information, thus, is cognitive and subjective; interpretations are bound to be varied affecting optimisation of information.

But there is literature that contradicts the finding even if they are not directly mediation-related. Among these are Makau *et al.* (2017), Interazi *et al.* (2016), and Ukandu *et al.* (2014). Makau *et al.* (2017) reported findings in their study that concluded that information quality had a significant influence on the performance of Ukandu *et al.* (2014). Ukandu *et al.* (2014) found unaccounted for information and personal opinion of management mediated e-human resource management and the quality of decision-making. Interazi *et al.* (2016) notes information systems and knowledge management systems can play a critical role in enhancing the quality of a management decision by providing access to a diverse source of information and knowledge, and offering analytical features and techniques for making more informed decisions.

The study then performed path analyses using regression. To establish the predictive power of the independent variable and intervening/mediator variable, the researcher performed a number of linear regressions to establish the significance of path coefficients based on a comparison of four equations, employing Baron and Kenny's causal steps method (Morera & Castro, 2013) as follows:

$IC = i_1 + aHRSE + \varepsilon_1$, regressing IC on HRSE

$P = i_2 + bIC + \varepsilon_2$, regressing P on IC;

$P = i_3 + cHRSE + \varepsilon_3$, regressing P on HRSE; and

$P = i_4 + c'HRSE + bIC + \varepsilon_4$, regressing P on both HRSE and IC.

where,

P = performance of the human resource strategy, dependent variable;

HRSE = human resource strategy evaluation, independent variable;

IC = information characteristics, is mediator variable; , information characteristics;

a = relationship between HRSE and IC;

c = the total effect of HRSE on P;

c' = direct relationship between HRSE and P, holding IC constant;

i_1, i_2, i_3, i_4 , = constants in the equations; and

$\varepsilon_1, \varepsilon_2, \varepsilon_3, \varepsilon_4$ = error terms in the four models

According to Fairchild and Mackinon (2009) the mediation model breaks down the total effect of the independent variable on the dependent variable into two parts: the indirect effect of human resource strategy evaluation on performance; and the direct effect of human resource strategy evaluation on performance. The first quantity is represented by the product of path a and b (ab) and the latter by c' in the equations above, so that the total effect becomes, $c = ab + c'$.

The following conditions, according to Zaiontz (2020), were confirmed before the researcher performed the actual mediation analyses: a significant relationship between human resource strategy evaluation and information characteristics; a significant relationship between

information characteristics and performance; a significant relationship between human resource strategy evaluation and performance; and that in the regression model with human resource strategy evaluation and information characteristics, the impact of path *c* is greatly reduced.

The study regressed information characteristics on human resource strategy evaluation. The direct path between human resource strategy evaluation and information characteristics was represented by the equation, $IC = i_1 + aHRSE + \varepsilon_1$. The model summary in Table 53 below indicates that for a unit change in the use of human resource strategy evaluation, there was a corresponding 59% (adjusted 33%) change in the performance of the human resource strategy in universities in Kenya.

Table 53

Regression Model Summary for mediator and first predictor

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.589 ^a	.347	.325	5.83293

a. Predictors: (Constant), Utilisation of Human Resource Strategy Evaluation

The ANOVA results are presented in Table 54 below. The model fitness was significant, $p\{0.000\} < 0.05$, thereby affirming the predictive power of human resource strategy evaluation on information characteristics.

Table 54*Analysis of Variance F-Test for mediator and first predictor*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	781.742	1	781.742	17.186	.000 ^b
	Residual	1319.096	29	45.486		
	Total	2100.839	30			

- a. Dependent Variable: Utilisation of Information Characteristics.
- b. Predictors: (Constant), Utilisation of Human Resource Strategy Evaluation

Finally, the researcher determined the regression coefficients for the model. These are indicated in Table 55 below.

Table 55*Regression Coefficients for mediator and first predictor*

Model		Unstandardised Coefficients		Standardised Coefficients		T	Sig.
		B	Std. Error	Beta			
1	(Constant)	13.122	8.856			1.482	.149
	HRSE	.559	.142	.589		3.926	.000

- a. Dependent Variable: IC

The beta for human resource strategy evaluation was positive and significant, $p\{0.000\} < 0.05$. A unit increase in human resource strategy evaluation predicts a 0.56 increase in the performance of information characteristics. This result satisfies one of the conditions for mediation analysis. Inserting the coefficients in the model yielded the following actual model is

$y = 13.1 + .56HRSE$. A unit increase in human resource strategy evaluation yielded a corresponding 0.56 increase in the human resource strategy in universities in Kenya.

The study regressed Performance on Information Characteristics. The researcher regressed P on IC on the basis of the equation, $P = i_2 + bIC + \varepsilon_2$. The model accounts for 61% of the variation in Information Characteristics (from the unadjusted $R = 0.610$) as the table below indicates.

Table 56

Regression Model Summary for criterion and mediator

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610 ^a	.372	.350	6.74434

a. Predictors: (Constant), IC

The ANOVA statistic in Table 57 below indicates model fitness. The model was found to be significant, $p\{0.000\} < 0.05$. This result implied that Information Characteristics predicted performance.

Table 57*Analysis of Variance F-Test for mediator and criterion*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	781.742	1	781.742	17.186	.000 ^b
	Residual	1319.096	29	45.486		
	Total	2100.839	30			

a. Dependent Variable: Performance

b. b. Predictors: (Constant), Information Characteristics.

The researcher then determined the regression coefficients for the model. These are indicated in Table 58 below.

Table 58*Regression Coefficients for mediator and criterion*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	14.537	8.355		1.740	.092
	IC	.719	.173	.610	4.146	.000

a. Dependent Variable: Performance

The beta for Information Characteristics was positive and significant, $p\{0.000\} < 0.05$. A unit increase in Information Characteristics causes a 0.72 increase in the performance of human resource strategy in universities in Kenya. This result satisfies one of the conditions for mediation analysis. Inserting the beta values into the model gives the actual model as:
 $y = 14.5 + .72IC$.

The study regressed Performance on Human Resource Strategy Evaluation. The researcher considered the equation $P = i_3 + cHRSE + \varepsilon_3$, which was examined at length in data presentation for the first objective. It entailed regressing performance on human resource strategy evaluation, which yielded the results indicated in Table 59 below.

Table 59

Regression Model Summary for criterion and first predictor

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608 ^a	.369	.347	6.75981

a. Predictors: (Constant), Utilisation of Human Resource Strategy Evaluation

The model summary indicates that human resource strategy evaluation contributed 0.608 to performance, implying a unit increase in human resource strategy evaluation added up to 61% to the performance of the human resource strategy in universities in Kenya. The ANOVA results in Table 60 below affirm the fitness of this model, the level of significance being $p\{0.000\} < 0.05$.

Table 60

Analysis of Variance F-Test Results for criterion and first predictor

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	775.682	1	775.682	16.975	.000 ^b
	Residual	1325.157	29	45.695		
	Total	2100.839	30			

a. Dependent Variable: Performance

b. Predictors: (Constant), Human Resource Strategy Evaluation

The regression coefficients derived from the analysis are presented in Table 61.

Table 61

Regression coefficients for criterion and first predictor

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	6.820	10.263		.665	.512
	HRSE	.679	.165	.608	4.120	.000

a. Dependent Variable: Performance

Substituting the coefficients in the equation gives, $P = 6.82 + .68HRSE$. The human resource strategy evaluation *beta* was significant, $p\{0.000\} < 0.05$, affirming its predictive power in relation to performance of human resource strategy evaluation in universities in Kenya.

Finally, from the equation, $P = i_4 c'HRSE + bIC + \varepsilon_4$, the researcher regressed performance on both human resource strategy evaluation and information characteristics. Table 62 below indicates that both accounted for 68% (unadjusted $R = .68$) to the performance of the human resource strategy.

Table 62*Regression Model Summary for criterion, first predictor, and mediator*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.683 ^a	.467	.428	6.32672

a. Predictors: (Constant), Utilisation of Human Resource Strategy Evaluation and IC

The ANOVA results depicted in Table 63 below indicate model fitness; hence the effectiveness of the predictability of human resource strategy evaluation and information characteristics on performance.

Table 63*Analysis of Variance F-Test for criterion, first predictor, and mediator*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	980.071	2	490.035	12.242	.000 ^b
	Residual	1120.768	28	40.027		
	Total	2100.839	30			

a. Dependent Variable: Performance

b. Predictors: (Constant), HRSE, IC

The model is significant, $p\{0.000\} < 0.05$. This fulfilled one other condition for mediation analysis. The researcher then obtained the coefficients for the following:

$P = i_4 + c'HRSE + bIC + \varepsilon_4$, and to establish their significance. The rule is that in the face of a mediator, the independent variable should assume diminished significance (Zaiontz, 2020).

The regression coefficients are presented in Table 64 below.

Table 64*Regression for criterion, first predictor, and mediator*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.847	9.962		.085	.933
	IC	.455	.201	.386	2.260	.032
	HRSE	.425	.191	.380	2.226	.034

a. Dependent Variable: Performance

From the table, the raw beta for human resource strategy evaluation in the joint model was 0.43 compared to 0.68 without mediation; a considerable 37% decline. Nevertheless, human resource strategy evaluation retained significance, $p\{0.03\} < 0.05$, in the presence of information characteristics. Similarly, the beta for information characteristics was significant at $p\{0.03\} < 0.05$; that means $b \neq 0$; information characteristics partialised the relationship between human resource strategy evaluation and the performance of the human resource strategy. That is mediation was taking place. The following model was then derived:

$$Y = .85 + .43HRSE + .46IC.$$

Zaiontz (2020) argues that in a regression model with X and M as predictors and Y as the criterion, the direct effect (path *c*) drops considerably. Accordingly, the *beta* for human resource strategy evaluation becomes non-significant or, at least, significance considerably drops. This can also mean that the semi-partial correlation of the the dependent variable and the independent variable factoring out the mediator noticeably drops. This finding reinforces that established by partial correlation above which found significant correlation, $r = .39$, $p\{0.034\} < 0.05$, when controlling for information characteristics.

The study then performed the the Sobel Test to confirm the significance of the path analyses. The results of partial correlation, the non-zero beta of information characteristics, and the considerable drop in human resource strategy evaluation coefficients in the face of information characteristics proves some partial mediation of information characteristics on the relationship between human resource strategy evaluation and performance of the human resource strategy. But there was a catch in drawing a conclusion about the hypothesis at this stage: the significance of the human resource strategy evaluation coefficient, which should be non significant for mediation to be proved. In such a case, Zaiontz (2020) advises use of the Sobel test to prove further evidence of the significance of mediation.

Sobel (1982, as cited by Ozdil and Kutlu, 2019) provided the formula as,

$$z = ab/\sqrt{(b^2SE_a^2) + (a^2SE_b^2)}$$

where,

a = the path coefficient of HRSE an IC, $a = .56$;

b = the path coefficient of IC and P, $b = .72$;

SE_a = the standard error associated with a , 0.14; and

SE_b = the standard error associated with b , 0.17.

Substituting these values for the notation in the Sobel test statistic formula above yielded a value of $z = 2.86$, $p\{0.000\} < 0.05$. This provided proof that the indirect effect, ab , was significant and mediation was taking place. Fairchild and MacKinnon (2009) agree that although there are alternative ways to estimate mediation, the product of (path) coefficients is applicable to complex models. Mediation analysis also assumes correct causal ordering of the

variables, which ensures absence of reverse causality effects and independent variable-mediator interaction.

The results of partial correlation, path analyses, and the Sobel test all confirmed that the intervening variable significantly mediated the relationship between human resource strategy evaluation and performance. Consequently, the researcher rejected the null hypothesis of a non-significant effect of the mediating role of ‘information characteristics’ on the relationship between human resource strategy evaluation and performance of human resource strategy in universities in Kenya. Specific literature on ‘information characteristics’ as mediating variable in human resources strategy evaluation in universities is unavailable.

Similar literature, however, backs the direct role of information and information systems on organisational success for example Ibrahim and Naem (2019), Yoshikuni and Albertin (2018), Balau and Utz (2017), Gikang’a (2016), Knox (2015), Davis *et al.* (2012), Karim (2011), Marcela and Knox (2004), Kirk (1999), and Argyropoulou (2018).

Ibrahim and Naem (2019) note information’s vitality in the knowledge economy. Yoshikuni and Albertin, (2018) found use of strategic information systems to create benefits that affected firm performance. Similarly, Argyropoulou (2018) found information quality positively impacted marketing and financial performance, and organisational growth and development. Gikang’a (2016) agreed that human resource management information system was a key determinant of strategic decision making. Knox (2015) found that intense scrutiny from stakeholders made it imperative for universities to have the right information.

Davis *et al.* (2012) argued that there is a nexus between managers' understanding of dissemination of strategy-related information, strategy implementation, and strategic awareness. This has implication for characterisation of information. Karim (2011) found evidence of utilisation of management information systems in strategic planning in banks. According to Marcela and Knox (2004) information emerged so organisations could better understand customers and processes. Drucker (1993, as cited by Kirk, 1999) emphasised superiority of knowledge over the traditional factors of value creation.

There is literature, though, that contradicts the positive role of information (Protus, 2020; Balau & Utz, 2017; Altarawneh and Al-Shqairat, 2017; Ruan *et al.*, 2016; Knox, 2015; Knox, 2014; Davis *et al.*, 2012; Lucey, 1995). Knox (2015) argued that information is *polysemous*, an intangible, subjective phenomenon. The implication is that information's effects may not be objectively assessed. Knox (2014) observes considerable mismatch between elegant information theorising and reality. That would imply characterising it would be intractable. Davis *et al.* (2012) found challenges of interpreting disseminated message between top and middle management with the boundary personnel. Judgement is a function of wisdom and is key in information use (Intezari *et al.*, 2016) and wisdom develops via practical use of knowledge (Ekmekçia *et al.*, 2014).

Protus (2020) has quoted a vice chancellor lamenting absence of a coordinated university-wide data management and access system, years after Lucey (1995) found a lack of cohesion, consistency, and reliability across all data sets coupled with lack of a single institutional responsibility for the data and information management function. Marcella and Knox (2014) have found deficiencies in organisational information strategy as Karim (2011) found that management information system the least executed in tactical planning. Kelly (2018) notes

international progress is ‘data, information, and knowledge intensive’”. Altarawneh and Al-Shqairat (2017) report under-commitment of top managers to human resource information system.

Balau and Utz (2017) report a curious phenomenon about individuals in their strategic behaviour that could interest human resource strategy. They found individuals keen to share fairly unimportant information while keeping important private information to themselves. Ruan *et al.* (2016) made a similar observation: information use appeared to be more effective where information was personalised. Hence need to understand characterisation. Thus, information characterisation is a very much people-based endeavour! Success of sourcing and use of information depends on information characterisation.

4.3.4 Findings for Objective Four

The fourth objective of this study sought to determine the mediating effect of information characteristics on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya. Strategy is costly, with huge multi-business, long-term consequences; it has to be steered well. From the start to the finish line, control is a function of adequate information (Chowdhury, n.d.). Information triggers learning which then enables corrective actions and/or improvements to be made on the course the institution has taken.

The study already comprehensively established the relationship between utilisation of human resource strategy control and performance of the human resource strategy in the first objective. In the third objective, presentation was made of the characteristics of information

characteristics. In the sections that follow, the researcher analysed the mediating effect of information characteristic on the independent variable-dependent variable relationship.

4.3.4.1 Test of Hypothesis Four

The fourth objective was accompanied by the null hypothesis four which stated: ‘information characteristics’ has no significant mediating effect on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya. As observed in the third objective, mediation analyses require fulfilment of a number of conditions: significant relation between independent variable and dependent variable and independent variable’s predictive power; significant relation of independent variable to mediator variable; significant relation between intervening variable and dependent variable and independent variable’s predictive power; significant relation between intervening variable and dependent variable, and intervening variable’s predictive power; and non-significance of independent variable to dependent variable in the presence of intervening variable (van Kesteren & Oberski, 2019; Kenny, 2018; Namazi & Namazi, 2015; Fairchild & MacKinnon, 2009).

In the fourth objective the relevant variables were: human resource strategy control; information characteristics; and performance of the human resource strategy. Bivariate and partial correlation, as well as linear regression analyses were performed to determine the presence of these conditions and to establish their effects on rejection or non-rejection of the hypothesis.

The study first established the significance of correlations. Correlation between human resource strategy control and performance and between human resource strategy control and information characteristics was performed and the results are indicated in Table 65 below.

Table 65

Correlation between first predictor, mediator, and criterion

		Performance	IC	HRSC
Performance	Pearson Correlation	1	.610**	.730**
	Sig. (2-tailed)		.000	.000
	N	31	31	31
IC	Pearson Correlation	.610**	1	.713**
	Sig. (2-tailed)	.000		.000
	N	31	31	31
HRSC	Pearson Correlation	.730**	.713**	1
	Sig. (2-tailed)	.000	.000	
	N	31	31	31

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The correlations between the independent variable and dependent variable, independent variable and intervening/mediating variable, and intervening/mediating and dependent variable, ($r = .73, p\{0.01\}$, $r = .71, p\{0.01\}$, $r = .61, p\{0.01\}$), respectively were all strong and significant; yet not so high as to cause the threat of multicollinearity. Thus, the study met first key condition for mediation. Namazi and Namazi (2015) are emphatic that direct relationship between independent variable and dependent variable must first be significant for any further analysis of mediation to proceed.

The study determined partial correlation. To determine the effect of the mediator variable, the study compared the correlation coefficient of the direct correlation between independent

variable, human resource strategy control, and dependent variable, and partial correlation coefficient (r) after controlling the mediator variable (holding the mediator variable constant).

For partial correlation to be used, the three variables (independent, dependent and mediator) were quantified and measured on a continuous (ratio) scale using the generated composite index scores. Table 66 presents the partial correlation coefficient matrix of human resource strategy control and performance of human resource strategy while controlling for utilisation of information characteristics in an organisation.

Table 66

Partial correlation for second predictor and criterion controlling for mediator

Control Variables			Performance Index Score	HRSC Index Score
Overall IC Index Score	Performance Index Score	Correlation	1.000	.599
		Sig. (2-tailed)	.	.000
		Df	0	28
	HRSC Index Score	Correlation	.599	1.000
		Sig. (2-tailed)	.000	.
		Df	28	0

**. Correlation is significant at the 0.01 level (2-tailed).

From Table 4.63, it can be observed that although there was still a positive correlation between utilisation of human resource strategy control (independent variable) and performance of human resource strategy (dependent variable) in universities. It was established that the control variable (utilisation of information characteristics) had suppressed the relationship between the two variables.

The suppression had contributed to a moderate positive partial correlation between the independent variable and dependent variable ($r = .599$). The positive partial correlation between the two variables suggests the higher the utilisation of the human resource strategy control, the higher is the level of performance of an organisation, and vice versa. This contrasted with the relationship between human resource strategy control and Performance without mediation, a strong positive correlation between the two variables ($r = .71$). The partial correlation coefficient value of $r = 0.599$ means that by controlling information characteristics, every unit change in the utilisation of human resource strategy control led to a 0.60 (60%) change in the performance of human resource strategy, down from 71%.

This is a case of suppression of the relationship between the independent and the dependent variable. This is a curious finding given that continuous flow of information is one of the factors of effective organisational control. According to eipi University (2020), information systems cause organisational success through seamless communication, more efficient operations management, better record keeping, and more informed decision-making. The problem appears to be the way information is obtained, analysed, judged and applied (Citroen, 2011), which is very much an human resource factor.

According to Zárraga-Rodríguez and Álvarez (2015) information resource will count for nothing where information capability is lacking. Todorova (n.d.) argues that information effectiveness is contingent upon establishment of information coordination and control mechanism. Evidence of this is lacking in the strategic plans of universities in Kenya. Almutairi (2011) alludes to less focus on organisation behaviour.

The study carried out path analyses using regression. To establish the predictive power of the independent variable and intervening/mediating variable, the researcher performed a number of linear regressions to determine the significance of path coefficients based on the equations on the basis of Baron and Kenny's causal steps method (Morera & Castro, 2013).

$$IC = i_1 + aHSRC + \varepsilon_1, \text{ regressing IC on HRSC};$$

$$P = i_2 + bIC + \varepsilon_2, \text{ regressing P on IC};$$

$$P = i_3 + cHRSC + \varepsilon_3, \text{ regressing P on HRSC}; \text{ and}$$

$$P = i_4 + c'HRSC + bIC + \varepsilon_4, \text{ regressing P on both HRSC and IC.}$$

where,

P = performance, dependent variable;

HRSC = independent variable;

IC = mediator variable, information characteristics;

a = relationship between HRSC and IC;

c = is the total effect of HRSC on P;

c' = direct relationship between HRSC and P, holding IC constant;

i_1, i_2, i_3, i_4 = constants in the equations; and

$\varepsilon_1, \varepsilon_2, \varepsilon_3, \varepsilon_4$ = error terms in the four models

The study regressed information characteristics on human resource strategy control. The direct path between human resource strategy control and IC was represented by the equation, $IC = i_1 + aHSRC + \varepsilon_1$. In other words, the study regressed information characteristics on human resource strategy control. The model summary in Table 67 indicate that for a unit

change in human resource strategy control, there is a corresponding 71% change in the performance of the human resource strategy in universities in Kenya (unadjusted R).

Table 67

Regression Model Summary for mediator and second predictor

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713 ^a	.508	.491	5.06479

a. Predictors: (Constant), HRSC

The ANOVA results are presented in the table below. The model fitness was significant, $p\{0.000\} < 0.05$, thereby affirming the predictive power of human resource strategy control on information characteristics.

Table 68

Analysis of Variance F-Test Results for Rmediator and second predictor

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	767.185	1	767.185	29.907	.000 ^b
Residual	743.912	29	25.652		
Total	1511.097	30			

a. Dependent Variable: IC

b. Predictors: (Constant), HRSC

The researcher then determined the regression coefficients for the model. These are indicated in Table 69 below.

Table 69*Regression Coefficients for mediator and second predictor*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	17.666	5.557		3.179	.004
	HRSC	.586	.107	.713	5.469	.000

a. Dependent Variable: IC

The beta for human resource strategy control was positive and significant, $p\{0.000\} < 0.05$. A unit increase in information characteristics predicts a .59 (standardised .71) increase in the performance of human resource strategy in universities in Kenya. This result satisfies one of the conditions for mediation analysis. Inserting the coefficients in the model yielded the following actual model is, $y = 17.7 + .59HRSC$.

The study regressed Performance on Information Characteristics. To determine the direct path between information characteristics and performance, the researcher regressed performance on information characteristics, using the equation, $P = i_2 + bIC + \varepsilon_2$. The model accounts for 61% of the variation in information characteristics (from the unadjusted $R = 0.61$) as Table 70 below indicates.

Table 70*Model Summary for criterion and mediator*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610 ^a	.372	.350	6.74434

a. Predictors: (Constant), IC

The ANOVA results in Table 71 indicates model fitness. The model was found to be significant, $p\{0.000\} < 0.05$. This result implied that information characteristics predicted performance.

Table 71

Analysis of Variance F-Test Results for criterion and mediator

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	781.742	1	781.742	17.186	.000 ^b
	Residual	1319.096	29	45.486		
	Total	2100.839	30			

a. Dependent Variable: Performance

b. Predictors: (Constant), IC

The researcher then determined the regression coefficients for the model. These are indicated in Table72 below.

Table 72

Regression Coefficients for criterion and mediator

Model		Unstandardised Coefficients		Standardised Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	14.537	8.355		1.740	.092
	IC	.719	.173	.610	4.146	.000

a. Dependent Variable: Performance

The beta for information characteristics was positive and significant, $p\{0.000\} < 0.05$. The strength by which information characteristics predicts performance is .72 (standardised .61) increase in the performance of human resource strategy in universities in Kenya. This result

satisfies one of the conditions for mediation analysis. Inserting the beta values into the model gives the actual model as: $P = 14.5 + .72IC$.

The study regressed Performance on Human Resource Strategy Control. The researcher carried out a path analysis between human resource strategy control and performance using the regression equation, $P = i_3 + cHSC + \epsilon_3$. Regressing performance on human resource strategy control on the basis of the equation yielded results as indicated in Table 73 below.

Table 73

Model Summary for criterion and second predictor

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730 ^a	.533	.517	5.81622

a. Predictors: (Constant), HRSC

The model summary indicates that human resource strategy control contributed 0.73 to performance, implying change in human resource strategy control affects performance by up to 73% to the performance of the human resource strategy in universities in Kenya (unadjusted .52). Using the ANOVA tool, the researcher sought to establish model fitness. The results were as indicated in the Table 74 below.

Table 74*Analysis of Variance F-Test Results for criterion and second predictor*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1119.814	1	1119.814	33.103	.000 ^b
	Residual	981.025	29	33.828		
	Total	2100.839	30			

a. Dependent Variable: Performance

b. Predictors: (Constant), HRSC

The model fitness was affirmed, the level of significance being $p\{0.000\} < 0.05$. The researcher then determined the regression coefficients for the model. These are indicated in the Table 75 below.

Table 75*Regression Coefficients for criterion and second predictor*

Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.587	6.381		1.972	.058
	HRSC	.708	.123	.730	5.753	.000

a. Dependent Variable: Performance

The beta for human resource strategy control was positive and significant, $p\{0.000\} < 0.05$. A unit increase in information characteristics predicts a .71 (standardised) increase in the performance of human resource strategy in universities in Kenya. This result satisfies one of the conditions for mediation analysis. Inserting the coefficients in the model yielded the following actual model: $P = 12.6 + .71HRSC$.

The study regressed Performance on Human Resource Strategy Control and Information Characteristics. Finally, from the equation, $P = i_4 + c'HSRC + bIC + \varepsilon_4$, the researcher regressed performance on both human resource strategy control and information characteristics. Table 76 indicates that both human resource strategy control and information characteristics accounted for 74% change in the performance of the human resource strategy in universities in Kenya.

Table 76

Model Summary for criterion, first predictor, and mediator

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741 ^a	.549	.517	5.81444

a. Predictors: (Constant), IC, HRSC

Using the ANOVA tool, the researcher sought to determine model fitness. The results are presented in Table 77 below.

Table 77

Analysis of Variance F-Test for criterion, first predictor, and mediator

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1154.223	2	577.112	17.070	.000 ^b
	Residual	946.615	28	33.808		
	Total	2100.839	30			

The model fitness was affirmed, the level of significance being $p\{0.000\} < 0.05$. This is indicative that human resource strategy control and information characteristics predict performance of human resource strategy control in universities in Kenya, thereby fulfilling one other condition for mediation analysis. The researcher then obtained the coefficients for the model and established their significance. The rule is that in the face of a mediator, the independent variable should not be significant for mediation to be established (Zaiontz, 2020). Table 78 shows the regression coefficients.

Table 78

Regression Coefficients for criterion, first predictor, and mediator

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	8.787	7.408		1.186	.246
HRSC	.582	.175	.600	3.319	.003
IC	.215	.213	.182	1.009	.322

a. Dependent Variable: Performance

From the table, the raw beta for human resource strategy control in the joint model, was .58, lower by 15% when compared to the direct (unmediated) strength of human resource strategy control, that is $P = i_1 + \beta_1\text{HRSC} + \varepsilon$, which was .71 (standardised .73). Nevertheless, the mediated human resource strategy control remained significant, $p\{0.03\} < 0.05$. But ‘information characteristics’ was not significant at, $p\{0.322\} > 0.05$. The following model was then derived: $P = 8.79 + .58\text{HRSC} + .22\text{IC}$.

According to Zaiontz (2020), in a regression model with X and M as predictors and Y as the criterion, the direct effect (path c) drops considerably.

Accordingly, the *beta* for X becomes less significant or, at least, significance considerably drops. This can also mean that the semi-partial correlation of Y on X factoring out M noticeably drops (in this case from .68 to .58). This finding reinforces that established by partial correlation above which found significant correlation ($r = .60, p\{0.000\} < 0.05$) when controlling for information characteristics.

The study performed the Sobel Test to confirm the significance of the path analyses. The results of partial correlation, the non-zero beta of information characteristics, and the considerable drop in human resource strategy control coefficients in the face of information characteristics proves some partial mediation of information characteristics on the relationship between human resource strategy control and performance of the human resource strategy. But there was a catch in drawing a conclusion about the hypothesis at this stage: the significance of the human resource strategy control coefficient, which should be non-significant for mediation to be proved.

In such a case, Zaiontz (2020) recommends use of the Sobel test for test given as follows:

$$z = ab / \sqrt{(b^2 SC_a^2) + (a^2 SC_b^2)}, \text{ where,}$$

a is the path coefficient of HRSC and IC, $a = 0.59$;

b is the path coefficient of IC and P,

$b = 0.72$; SC_a is the standard error associated with a , $SC_a = 0.11$;

SC_b is the standard error associated with b , $SC_b = 0.17$; and

ab is the product of a and b .

The Sobel test statistic was $z = 3.31, p\{0.005\} < 0.05$, which supported the significance of the indirect effect, ab . Thus, despite the significance of the human resource strategy control, the

researcher rejected the null hypothesis of no significance and concluded that the variable ‘information characteristics’ had a significant mediating effect on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya.

The significance of the mediating role of information characteristics in relation to human resource strategy control and performance is consistent with CEOPedia (2020), Wisniewski *et al* (2020), Jug *et al.* (2018), Barnat (2018), Hattie and Timperley (2007), and Cancellier *et al.* (2014). According to CEOPedia (2020), key tasks in strategic controlling include creating and monitoring information systems and sources. Hattie and Timperley (2007) and Wisniewski *et al.* (2020) conceptualise feedback as informational. Barnat (2018) indicates that feedforward control is dependent on accurate and timely information. All strategy begins with environmental scanning, which essentially is information gathering and analysis (Aguillar, 1967 as cited by Cancellier *et al.*, 2014).

Similar results from Snell (1992)’s study suggested that administrative information mediated the relationships between product-market change and the integration of work flow. Information enables establishment of cause-effect relationship between strategic variables in an entity, depending on whether it is complete or partial. According to Barnat (2018), effective control systems require accurate, timely, and objective and comprehensible information, which is hardly always available. The findings are also consistent with Bubel and Cichoń (2017) who found that information supports supervision and control.

But there is literature that contradicts this finding, for example, Barnat (2018), Beuren and Teixeira (2014). Ferreira and Otley (2006 as cited by Beuren and Teixeira, 2014),) found a

low level of strategic information within the system of control. In higher education institutions feedback and feedforward are used in the context of educating rather than in management (Henderson *et al.*, 2019; Reimann *et al.*, 2019).

4.3.5 Findings for Objective Five

The fifth objective of this study sought to examine the moderating role of Top Management Support on the relationship between human resource strategy evaluation and performance of the human resource strategy in universities in Kenya. The objective was informed by the fact that environmental complexity means relationships among factors are rarely one- or two-way; they are intricate and interwoven, leading to multifaceted interactions. The justification of this objective lay in the fact that traditionally, strategic management has been a distinguishing as a top management activity.

Top management remains, arguably, the most influential factor of the internal organisational context via policy formulation, allocation of resources and supervision (Mkonya et al. (2018), among others. According to Javed (2015), top management is mandatory to all strategy and action plans. The TMS behaviour based on managerial roles assumed by individuals who occupy high level positions in the organisation: informational; figurehead; and decisional (Mintzberg, 1974). Top management's influential role involves making available the necessary resources, establishing and communicating quality policy, setting up a quality management structure, and monitoring and evaluation (Oruma, Mironga, and Muma, 2014).

In moderation, a contingency factor affects the magnitude of the effect of the antecedent by enhancing, buffering, or antagonising the relationship with the dependent variable. This study assumed that top management support behaviour towards human resource at universities is

characteristically aloof, indifferent, and bureaucratic. The traditional disdain for managerial work is now co-extensive with creeping in of managerialism. Top management teams have become power wielders becoming more self- interested, hence the hypothesis of no significance.

The study has already established the relationship between human resource strategy evaluation and performance in the first objective. In this objective, the study determines the role of top management support before controlling for its effects in the relationship between the independent and dependent variables.

4.3.5.1 Top Management Support

Top management support in an organisation is a complex and multi-dimensional concept. The concept has four dimensions including resource support, communication support, involvement support and commitment support. The study adopted the four dimensions to reflect and capture the full complexity of the concept of top management support. The study examined each of these dimensions separately and cumulatively. The dimensions varied in the number of indicators including resource with two, commitment with four, involvement had four and communication had two. The identified indicators for each dimension were converted into a set generic statements concerning top management support.

The sampled 31 respondents were asked to rate the level of support for indicators of each dimension in their institution. The respondents rated their support of each indicator on a five-point Likert scale ranging from 1 to 5, where 1 meant strongly disagree (SD), 2 was disagree (D), 3 indicated uncertain (U), 4 was agree (A) and 5 meant strongly agree (SA). The higher

the score, the higher was the level of support of the indicator in their institution, and vice versa. The measurement of each dimension of top management support is discussed below.

Resource allocation was the first dimension of top management support the study measured. Resources are used up in value creation, which includes services at universities. Resource categories are: financial; operating; and human. Intangible resources are image and reputation. Resources are always limited amidst competing demands. Prudent allocation and efficient use are absolutely imperative. Top management has a significant say in how resources are apportioned, particularly for strategic objectives; and guards against under utilisation and overutilisation of resources, keeping track of utilisation.

In this study, two indicators were used to measure top management support by resource allocation. The two indicators generally captured the following aspects of the dimension: budgeting and resource adequacy; and authority to incur expenditure. Each indicator of support by resource was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 79 depicts the distribution of the rating the utilisation of each indicator of resource support.

Table 79

Rating of Utilisation of Top Management Support by Resource Allocation

Indicator	M	SD	CV
HR occupies a central place in budgeting	3.45	1.18	34.2%
HR head has discretion over departmental operating budget	3.45	1.23	35.8%

Source: research data

Table 79 shows that the respondents rated the utilisation of both indicators of top management support by resource above average. They were evenly split between the two indicators: 'HR has adequate resources and occupies a central place in budgeting' $\bar{x}_2 = 3.45$ ($S_2 = 1.23$) with a coefficient of variation of 34.2%; and 'HR head has discretion over departmental operating budget', $\bar{x}_1 = 3.45$ ($S_2 = 1.18$) with a coefficient of variation of 35.8%. There was only a slight difference in variability. The rating suggests that the respondents were fairly satisfied with the utilisation of the indicators of top management support by resource allocation. Moderate variability indicates respondents were agreed on the two indicators as measures of top management support by resource allocation in universities.

The findings are consistent with Kahar *et al.* (2016) who find budget as a means of control, coordination, communication, performance evaluation and motivation, as well as a tool for evaluating performance. Punia and Saharan (2012) outlined six human resource practices that served as bases for resource allocation: Procurement Practices, Development Practices, Compensation Practices, Maintenance Practices, Separation Practices, and Employment Relations Practices. Gibosn (2009) agreed that human resource practices create costs.

That the biggest cost of doing business is often labour (Paycor, 2019; Employers Group, 2018; Everse, 2011), as is the case for universities Khasawneh (2018), bestows human resource an apparent strategic quality even if it is not realised. Kahar *et al.* (2016) extol participatory budgeting. Savaneviciene and Stankeviciute (2011) establish that the principal assumptions that affect the interaction between top management and line managers are among others the organisational structure, organisational culture, communication and allocation of resources.

But Woods (2010) finds that funding cuts show low priority accorded investment in human resource and talent. This in turn is evidence that top management rarely appreciates human resource, probably out of disdain for managerial work, and where they do, only grudgingly out of necessity, due to costs of penalties. Punia and Saharan (2012) also observe that there is still low awareness on how important investment in human resource departments is in universities. According to Thorn (2017), human resource budget allotment in higher education is usually 50-75 % short of similar investment in other industries in the United States, at least to the extent of non-salary benefits. Thus, note Cohen and Karatzimas (2011), human resource generally is deployed less to its fullest potential.

The findings also appear to contradict Suhail and Steen (2018) who finds that human resource autonomy in Pakistan hospitals is lacking in part due to strict adherence to government directives. Arguably, cuts in government funding to public universities in Kenya constrain top management autonomy that subsequently affects human resource's own autonomy. Suhail and Steen (2018) note that impediments to execution of human resource practices centre around a lack of self-determination. It is not as if human resource controls the salaried account. It is in the area of budgeting that the traditional role of human resource in universities becomes pronounced. According to Lambert (2009), many human resource functions fail to invest in their own people.

The response to each constituent indicator was scored on a scale of 1, indicating very low support, to 5, indicating very high support. The individual indicator scores were summed up to form a composite index score, known as the resource support index score which summarised all the two indicators into a single numeric value for each respondent. The index score varied from 2, indicating very low resource support to 10, indicating very high resource support. The higher the score, the higher was the level of resource support, and vice versa.

The composite index score had a mean score of $\bar{x} = 6.90$ and a standard deviation of $s = 2.286$. The index score was collapsed into three ordinal categories including a score of 4-9 (less support), a score of 10-14 (moderate support) and a score of 15-20 (high support).

Table 80 summarises the levels of resource support.

Table 80

Levels of Top Management Support by Resource Allocation

Levels of Support	Frequency	Per cent
Low	8	25.8
Moderate	9	29.0
High	14	45.2
Total	31	100.0

Source: research data

Table 80 indicates that 14 respondents, 45.2 per cent, reported top management support by resource allocation, nine (9), 29.0 per cent, indicated moderate and eight (8), 25.8 per cent, experienced less support by resource allocation. This suggests that the perception of top management support by resource allocation to human resource in universities is mixed; respondents perceive top management supportive behaviours as being both positive and negative.

Top management support behaviours revolve around managerial roles that Mintzberg (1973, as cited by Obiefuna, 2014), classifies as interpersonal, informational, and decisional. Resource allocation is a decisional role. Steiner (1969, as cited by Barnatt, 2018) is in agreement: among the supportive behaviours of top management include provision of resources (financial, material, and human). Kazmi *et al.* (2015) had ‘Adequacy of human and

material resources' as an indicator of top management support and which was found to contribute to performance.

Gibson (2009) extolled the value of participatory budget-making. Arguably, it is during budgeting that human resource can showcase its strategic competence. The reason is that not only do people do budgets but people also cause budgets to work. Furthermore, participation would be a mechanism to correct information imbalance that is typical of large organisations and which challenge resource allocation decisions (Carlos & Santos, 2017). But human resource issues are high stake; top management teams have to be cautious and keen.

But adequacy of resources at the human resource function is contested in the literature. This could be attributed to shrinking resources, competition for limited resources with other departments. In particular resources for strategic work may not be forthcoming. Zeleza (2020) paints a grim picture of universities in the world making reference to surveys by Ernest and Young, Business Insider, and Moody's. According to Mah'd (2014), limitations of information sharing and department participation within the universities' budgets impact efficiency negatively. Zeleza (2020) suggests Kenyan universities are bankrupt: many are constrained in payment of salaries, in the remission of statutory dues, and in the provision of supplies among others.

The above average rating on discretion and autonomy is consistent with Carnaghi (2020) who find that incurring expenses from operating budgets is considerably less restricted. Generally, however, human resource is low in status with limited autonomy. Pfeffer (1992, as cited by Holden and Griggs, 2009) argues the function is misplaced in relation to power.

Academia is disdainful of managerial work yet most members of top management teams get recruited from academia (Rowe, 2014). Advertisements for Registrar (Administration) do not suggest strong preference for human resource qualifications. If human resource management is increasingly being strongly shaped by external factors, human resource autonomy is threatened (Blom *et al.*, 2019; Sumah & Baatiema, 2019; Suhail & Steen, 2018). Lack of autonomy must cast doubts on the viability of human resource strategising. Universities are accused of increasingly hiring more professional staff (Baltaru, 2019; Marcus, 2014). In Kenya, it is said to be at the expense of academic staff, which in effect connotes resource misallocation.

The study then measured Top Management Support by Commitment. Commitment is the degree to which individuals consider themselves attached to their institutions. Literature frequently discusses commitment as it pertains to employees and only rarely in relation to management. In this study, the test for commitment targeted top management, the Registrar (Administration) in universities in Kenya. Four indicators were used to measure top management support by commitment.

The four indicators generally capture the following aspects of the dimension: affective commitment; continuance commitment; normative commitment; and commitment scales. Each indicator of commitment support was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 81 depicts the distribution of the rating the utilisation of each indicator of commitment support.

Table 81*Rating of Utilisation of Top Management Support by Commitment*

Indicator	M	SD	CV
The HR function is represented at high level strategy forums Executives are a positive, supportive, and sustainable contributor (Continuance)	4.10	1.04	25.5%
Executives consider themselves duty bound to take part in HR planning (Normative)	3.84	1.00	26.1%
HR does not need to have to always defend its role Executives feel very much part of HR function (Affective)	3.61	1.12	31.02%
Executives' mentorship of HR specialists is well-established (High goal, membership, and people Commitment Scales) and demonstrated	3.29	1.13	34.4%

Source: research data

Table 81 shows that the respondents rated the utilisation of all the four indicators of top management support by commitment above average with a mean score ranging between $\bar{x}_1 = 3.29$ ($S_1 = 1.13$) and $\bar{x}_4 = 4.10$ ($S_4 = 1.04$). They rated highest the indicator 'Executives consider to be a positive and supportive contributor,' $\bar{x}_4 = 4.10$ ($S_4 = 1.04$) with a coefficient of variation of 25.46%. It was followed by 'Executives consider themselves duty bound to take part in HR planning,' $\bar{x}_3 = 3.84$ ($S_3 = 1.00$) with a coefficient of variation of 26.12%. Third was the indicator 'Executives feel very much part of the human resource function', $\bar{x}_2 = 3.61$ ($S_2 = 1.12$) with a coefficient of variation of 30.91%. And the indicator 'Elements of High Commitment Work Systems are noticeable,' $\bar{x}_1 = 3.29$ ($S_1 = 1.13$) with a coefficient of variation of 34.38% they rated lowest.

The rating suggests that the respondents were fairly satisfied with the utilisation of the indicators of top management support by commitment. Low variability could be interpreted as agreement with indicators as measures of commitment, reflecting homogeneity of sample. The top-rated indicator reflected continuance commitment, which is consistent with Osemeke (2016) according to whom lack of continuance could disrupt management support. Suzuki and Hur (2019) argue that the “features of closed systems are more likely to produce an exchange of obligations between organisation and public officials that leads to higher organisational commitment than open systems”. Universities are typical bureaucracies in the Weberian mould; careers resemble those of closed systems associated with public/civil service. Suzuki and Hur (2019) add that continuance and normative commitments are supported in such systems.

Lack of affect means indifference. Inattention to Normative commitment could cause ethical challenges in the accuracy and relevance of measure of performance (Osemeke, 2016), particularly in reporting financial figures. According to Iverson and Buttigieg (1999), Affective and Normative commitments associated with positive organisational outcomes, particularly change; measured levels by age, gender, education, and tenure.

The second indicator related to normative commitment. Nkhukhu-Orlando *et al.* (2019) found commitment has implications loyalties of academic professionals, who are independent-minded (autonomous) and objective and are always conflicted in loyalties owing to multiplicity of goals in their institutions. It was doubtful that top management really pursue espoused goals and values, thereby modelling commitment behaviour. Sow, Anthony, Berete (2016) found a negative and significant relationship between normative commitment and turnover intention ($r = -.248, p\{0.03\}$).

The third indicator pertained to affective commitment that, arguably, forms the basis for emotional labour, emotional intelligence of managers, preference, and the elicitation of empathy. Suzuki and Hur (2019) found that affective commitment not found among closed career systems that characterise public service. Universities lean more towards civil service practice than corporate sector, in part because of heavy regulation. The fourth indicator related to the scales on which actual commitment within organisations can be determined, the above average rating consistent with Brown (1997)'s commitment scales entailing goal commitment, membership commitment, and people commitment.

The response to each constituent indicator was scored on a scale of 1, indicating very low support, to 5, indicating very high support. The individual indicator scores were summed up to form a composite index score, known as the commitment support index score which summarised all the four indicators into a single numeric value for each respondent. The index score varied from 4, indicating very low commitment support to 20, indicating very high commitment support. The higher the score, the higher was the level of commitment support, and vice versa. The composite index score had a mean score of $\bar{x} = 14.84$ and a standard deviation of $s = 2.876$. The index score was collapsed into three ordinal categories (cut-off scores) including a score of 4-9 (low support), a score of 10-14 (moderate support) and a score of 15-20 (high support). Table 82 summarises the levels of commitment support.

Table 82

Levels of Top Management Support by Commitment

Levels of Support	Frequency	Percent
Low	0	0.0
Moderate	14	45.2
High	17	54.8
Total	31	100.0

Table 82 indicates that 17 respondents, 54.8%, reported high support by commitment, 14 respondents, 45.2%, had moderate support by Commitment. None of the respondents reported low support by commitment. This suggests that generally, respondents were affectively attached to their institutions, had no intentions to leave their institutions, and were aware of the place of morality in their institutions. Finally, they were conscious about the metrics that assess commitment.

These findings are consistent with those of Lovakov (2016), Huo *et al.* (2020), Timalsina *et al.* (2018), Oropesa-Vento *et al.* (2015), Bon and Alghannai (2018), Yahaya *et al.* (2014), Nazneen and Miralam (2017, Kassaw and Golga (2019), and Salum (2017). According to (Lovakov, 2016), institutional members who combine administrative and teaching roles show higher commitment. This is likely to be the case among respondents in this study who hold terminal degrees, an aspect that was not explicitly tested but is implied.

Timalsina *et al.* (2018) found nursing faculty in Kathmandu had a moderate level of organisational commitment. Huo *et al.* (2020)'s research results show that commitment to human resource management indirectly affects the enterprise of green creativity, the process intermediated by green human resource management. Oropesa-Vento *et al.* (2015) found management commitment directly positively affecting economic benefits of their target organisations.

Significantly, Bon and Alghannai (2018) found that continuous organisational commitment fully moderates the relationship between strategy evaluation and performance in Libya's industrial sector. Yahaya *et al.* (2014), Naznee and Miralam (2017), as well as Kassaw and Golga (2019) reported moderate to 'very high' commitment among faculty. Salum (2017)

tested for commitment in achieving strategic objectives and found its absence a barrier to the success of the strategy process. But the moderate-to-high levels of commitment, however, are inconsistent with Grosso (2011), Mercurio (2015), Kilungu (2015), Yahaya *et al.* (2014), Szelągowska-Rudzka (2018), and Salum (2017) among others. Keup *et al.* (2001, as cited by Grosso (2011)), with whom Szelągowska-Rudzka (2018) agree, argues that academic leaders hardly display managerial dynamics akin to those in the corporate world, so that motivating faculty cannot be fashioned along the lines of motivating employees in commercial concerns. Mercurio (2015) finds conceptual disagreements on nature of commitment still abounds. And Kilungu (2015) finds commitment studies concentrated more on subordinates than on management. Yahaya *et al.* (2014) found limited research on organisational commitment having been done in higher education settings.

The study also measured Top Management Support by Involvement. Literature often uses Involvement, participation, and engagement. Heller *et al.* (2004, as cited by Abilgaard *et al.*, 2018), defines engagement as “A process which allows employees to exert some influence over their work and the conditions under which they work’. Top management supports that process. Strategic participation is two-way: it helps build coalitions as well as involvement and commitment (Davies, 2011).

Involvement is gained through: local line leaders; executive leaders; and internal networks (Dess *et al.*, 2005). Hence need for coherence. Traditionally, strategy used to be the sole the responsibility of top management. Now it is not possible to ‘figure it all out at the top’; organisationwide strategic thinking (collective genius says Walter Wriston as quoted by Dess *et al.*, 2005) is called for, that is both individual and organisational strategic thinking (Sharifi, 2012).

In this study, the researcher used four indicators to measure involvement as supportive top management behaviour. The four indicators generally capture the following aspects of the construct: structural issues; championship; expertise; and power sharing. Each indicator of support by involvement was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 83 depicts the distribution of the rating the utilisation of each indicator of involvement support.

Table 83

Rating of Utilisation of Top Management Support by Involvement

Indicator	M	SD	CV
HR head specialist consults with the senior management regularly (structural issues)	4.55	0.68	15.0%
Executives are at the forefront of introduction and promotion of new HR initiatives (champions)	4.03	0.91	22.6%
Executives understanding of the nature of [and championing] HR initiatives is well-known (expertise)	3.84	0.93	22.6%
Appraisals indicate satisfactory employee empowerment (power sharing)	3.65	0.92	25.1%

Source: research data

Table 83 indicates how the respondents rated the four indicators of top management support by involvement. The above average mean scores ranged from $\bar{x}_1 = 3.65$ ($S_1 = 0.92$) to $\bar{x}_4 = 4.55$ ($S_4 = 0.68$). The indicator ‘HR head specialist consults with the senior management regularly’ rated highest, $\bar{x}_4 = 4.55$ ($S_4 = 0.68$) with a coefficient of variation of 14.84%.

It was followed by the indicator ‘Executives are at the forefront of introduction of new HR initiatives’, $\bar{x}_3 = 4.03$ ($S_3 = 0.91$) with a coefficient of variation of 22.63%. Third, respondents rated ‘Executives’ role in championing human resource initiatives is well-known’, $\bar{x}_2 = 3.84$ ($S_2 = 0.93$) with a coefficient of variation of 24.32%. And lastly, the indicator ‘Appraisals indicate satisfactory employee empowerment’, $\bar{x}_1 = 3.65$ ($S_1 = 0.92$) with a coefficient of variation of 25.07% rated last. These ratings suggest that the respondents were fairly satisfied with the utilisation of the indicators of support by involvement. Low to moderate variability also indicated consensus about the indicators as proxies for top management support by involvement among universities in Kenya. The respondents ranked structural issues, human resource championship, expertise, and power sharing in that order. Structural issues received greatest score.

This is consistent with Pusser and Loss (2020), Abt and zuKnyphausen-Aufseß (2017), Stanley and Karolin (2016), Jensen (2010), Lambert (2009), Frans (2021), and Ritchter (2018). According to Baldrige (1971, as cited by Pusser and Loss, 2020), structural dimensions constitutes “bureaucratic, collegial, and political”. According to Bolman and Deal (1997) they constitute “structural, human resource, political, and symbolic”. And Birnbaum (1988) considers these elements as “bureaucratic, collegial, political, anarchical, and cybernetic”. They assert that among other factors, the organisational structure dictates the institutional activities of colleges and universities.

According to Ritchter (2018), structure defines relationships within institutions and thus the hierarchical positioning of the human resource management function. This then implicates other elements associated with high involvement work systems, notably, power, information, knowledge, and rewards. Frans (2021) observes that structuring a firm’s resources implicates

how they create maximum performance potential. According to Abt and zuKnyphausen-Aufseß (2017), the membership of the heads of human resource in the top management team as well as the designation of the position as ‘Chief Human Resources Officer’ signals an important strategic and symbolic choice. It implicates hierarchical distance.

But the finding that human resource is structurally well-placed is at odds with Menon (2015), Musselin (2006), Jensen (2010), Watson and Thompson (2018), Bafaro *et al.* (2017) among others. Menon (2015), finds that a separate human resource function does not even exist in Indian state funded universities and affiliated colleges. Musselin (2006) argues that as specific organisations, non-academic models will not be imposed wholesale on universities. Jensen (2010) observes a contradiction that while the university is a professional bureaucracy that is democratic, affording members wide latitude of autonomy, it is rigid and conservative. Bafaro *et al.* (2017) referring to research by McKinsey, show that typical human resource departments are still 60 percent operationally-inclined. And according to Watson and Thompson (2018), human resource is the last bastion of bureaucracy in the organisation and is non-performant in universities. These views challenge some of the claim human resource may make of itself as to being strategically positioned.

Respondents rated high top management’s championship of human resource. This finding is consistent with Rubin (2006), Cision PR Newswire (2020), New Jersey Business (2020), (PwC, 2020), SHRM (2020), as well as Dewar *et al.* (2019) among others. In Rubin (2006)’s view, chief executive officers’ role in talent management is expanding notwithstanding its lack of basis in a formal strategy. Cision PR Newswire (2020) reports a survey according to which the world's chief executives top internal concern is attracting and retaining talent.

Even among external concerns, the human resource agenda, in the form of tight labour markets (New Jersey Business, 2020), is worrisome, coming only second to recession (PwC, 2020). Dewar *et al.* (2019) in modelling chief executive officer excellence identify six dimensions of focus among them performance and health that entails matching talent to value, tackling culture, and organisational design. These are human resource strategy domains (Thomas, 1996). The Society of Human Resource Management (2020) asserts that in times of turbulence, organisations seek to leverage human resource to set the agenda for employee engagement and commitment to earn success in the marketplace.

But there are challenges to this high rating of top management's human resource championship at universities in Kenya. Boada-Cuerva *et al.* (2019) find that senior management remains the missing actor in theorising human resource management. Heathfield (2019) notes the championship role of human resource has been well-articulated in the literature compared to that of top management. Traditionally, notes Sullivan (2006), human resource was a backroom "overhead" role with little, if any, direct responsibility; probably the arm of top management.

This status largely persists for as Segran (2017) observes, human resource remains subordinate to the company's leadership. Thus, the human resource function is disrespected; and top management is frustrated with it, probably due to absence of strategic thinking among human resource leaders (Gupta, 2015). Brechigher education institutionsen (2019) reports that chief executive officers rarely gain experience in the people function while chief human resources officers are the least likely among functional experts to scale the corporate ladder.

In relation to universities, Watson and Thompson (2018), professors, minimise the role of human considering it irrelevant to higher education institutions, a symptom of *managerialism*. This attitude portends trouble for strategic human resource management at university given that senior managers (administrators) are invariably recruited from among the faculty.

Respondents rated high above average the indicator related top management's perceived human resource functional expertise and experience. Top managers do not act robotically, or in a vacuum; their backgrounds and characteristics among them functional diversity, experience, and education are influential. This finding is, thus, consistent with studies that are supportive of managers' attributes and personalised biases in strategic choices. Among these are Abatecola and Cristofaro (2018), Alhosani *et al.* (2017), Feli'cio (2013), Juravich (2012), Buyl *et al.* (2011), and Matthyssens (2011). They reinforce Hambrick and Masons (1984)'s Upper Echelon Theory (Abatecola & Cristofaro, 2018). According to Campbell (2013) and Stanley and Karolin (2016), though top management teams are largely generalist and may not need to be specialists, some functional human resource expertise and experiences are imperative.

University administrators get picked from departmental professoriate, rather than professionals, based on subject specialisms. As these top management teams have grown diverse, so has strategic decision-taking complexity due to increased diverse personal biases. Partisanship against managerial work is not hidden (Watson & Thompson, 2018; Davis *et al.*, 2016; Rowe, 2014). Literature, though, about the extent of anti-human resource sentiments in Kenyan universities is non-existent.

Respondents rated last but still above average the indicator related to involvement by empowerment, "the opportunity and means to effectively participate and share authority". The finding is consistent with the University of Iowa (2020), Meng and Sun (2019), Beckett (2018), Idua (2017), Stanley and Karolin (2016), Al Ghamdi (2016), Amen and Najia (2015) among others. According to the University of Iowa (2020) policy, power sharing involves practices and established rules and roles that result in broad-based controlling or leading. Meng and Sun (2019) found a high positive correlation between psychological empowerment and work engagement.

Beckett (2018) observes that only empowered managers motivate employees. Stanley and Karolin (2016)'s have found that democratic approach topped the catalogue of approaches top management teams deploy to execute functions and tasks. According to Al Ghamdi (2016) psychological empowerment positively influences on administrative creativity, while Idua (2017) found that employee empowerment has a positive relationship with the performance.

Amen and Najia (2015) found university teachers to be highly empowered. Thompson (2014) argues how administrative members of staff have access to informal power, which with skill and willingness, can deploy to influence departmental decisions. Formal power to human resource is likely to improve as the legal and political framework Human Resource Management Act, 2012 imposes bears on universities. But the high rating on empowerment is contradicted by a number of studies among them Lassoued *et al.* (2020), Lee *et al.* (2018), Davis *et al.* (2016), and Froomkin (2013) according to whom the power of professoriate has declined significantly.

Kiplangat *et al.* (2016) found that senior management were more reactive rather than proactive particularly with union relations, evidently a less empowering form of involvement. Lassoued *et al.* (2020) found only average levels of administrative empowerment at Abu Dhabi University. Lee *et al.* (2018) assert empowerment can be counter-productive, smirking of paternalism, suggestive of control by other ways, to the discomfort of independent individuals. According to Davis *et al.* (2016), *managerialism* has bred tyrannical bureaucracy leading to disempowered middle managers, a culture of conformance over collegiality, control at the cost of innovation and experimentation and an over-articulation of strategy which devalues the strategy.

Marginson *et al.* (2009, as cited by Tran and White, 2012) as well as Rizvi and Lingard (2010) aver that processes of audit, *managerialism* and performativity have led to less autonomy for individual academics and university departments. Power derives from a position in a social structure (Lucas & Baxt, 2012), which human resource still struggles for. Administrative and academic staff experience constraints due to bureaucracy which is often attributed to the numerous and constantly changing regulations from the governments.

The response to each constituent indicator was scored on a scale of 1, indicating very low support, to 5, indicating very high support. The individual indicator scores were summed up to form a composite index score, known as the involvement support index score which summarised all the four indicators into a single numeric value for each respondent. The index score varied from 4, indicating very low involvement support to 20, indicating very high involvement support. The higher the score, the higher was the level of involvement support, and vice versa.

The composite index score had a mean score of $\bar{x}=14.84$ and a standard deviation of $s = 2.876$. The index score was collapsed into three ordinal categories including a score of 4-9 (less support), a score of 10-14 (moderate support) and a score of 15-20 (high support). Table 84 summarises the levels of top management support by involvement.

Table 84

Levels of Top Management Support by Involvement

Levels of support	Frequency	Percent
Less	0	0.0
Moderate	7	22.6
High	24	77.4
Total	31	100.0

Source: research data

Table 84 indicates that 24 the respondents, 77.4%, had high support by involvement and seven (7), 22.6%, had moderate support by Involvement. None reported low support by involvement. This suggests that top management was receptive to the principle of engaging organisational members in decision-making.

This could be attributed to nature of the university as a professional bureaucracy (Mintzberg, 2000) with high levels of freedom and autonomy (academic freedom and institutional autonomy) that necessitates a democratic approach to leadership. Salum (2017) affirmed the need for a knowledgeable human resource pool in the strategy process. Also found involvement desirable. Unions, among them the Universities Academic Staff Union and Kenya Universities Staff Union, have also increased the push for participation principally through collective bargaining.

Literature on high involvement work systems in universities is scant. The finding, though, is in line with Ritcher (2018), Oruma *et al.* (2014), Bockerman (2015), the SHRM (2020), Benson *et al.* (2013). The SHRM (2020) reports that middle managers are key to overall employee engagement. Oruma *et al.* (2014) established that executive involvement in quality management led to a participative milieu in the organisation. The Gallup Organisation (as cited by Ritcher, 2018), Bockerman (2015), and Combs *et al.*, 2006, as cited by Benson *et al.*, 2013) found that employee involvement management practices is related to positive employee work experiences and high levels of organisational performance. In a study, Faragher (2016) reported that top management was increasingly getting involved in onboarding.

But Wright (1999) argues that high performance work systems are characterised by misspecification. This poses a challenge to application. Ooshaksaraie and Azadehdel (2013) found inadequate management involvement in safety matters in Iranian metal industry, despite sensitive safety issues involved. There are perceptions that *Managerialism* is disempowering in universities.

Recent high levels conflicts in succession demonstrate this feature. Universities are likely to facilitate psychological empowerment of individual employees, particularly faculty members than the administrative empowerment of the human resource function. Generally, however, there is paucity of literature on involvement by management. Again, literature makes little, if any, distinction between employee and management involvement. Another element of top management support in this study examined was communication. Communication keeps strategic thinking alive (Moore, 2016).

It also promotes the knowledge, understandability, and buy-in of strategy by as many organisational members as possible thus minimising the risk of people veering off course (Thompson *et al.*, 2004). Through mean-making and sense-giving communication creates cohesiveness and strategic coherence (Kroika & Świda, 2018).

In this study, two indicators were used to measure communication support from top management. The two indicators generally capture the following aspects of the dimension: chief executive officer emphasis; and communication strategy. Each indicator of resource support was presented in a statement form. The respondents rated their utilisation of each statement (indicator) on a five-point Likert scale ranging from 1 to 5. Table 85 depicts the distribution of the rating the utilisation of each indicator of communication support.

Table 85

Rating of Utilisation of Top Management Support by Communication

Indicator	M	SD	CV
Senior management openly emphasises the importance of HR initiatives (CEO emphasis)	4.26	.82	19.1%
Senior management encourages information gathering and dissemination (information sharing)	4.19	0.65	15.6%

Source: research data

Table 85 shows how the respondents rated the utilisation of the two indicators of top management support through communication. According to the respondents, ‘Senior management openly emphasises the importance of HR initiatives $\bar{x}_2 = 4.26$ ($S_2 = 0.82$) with a coefficient of variation of 19.13% rated more highly to the indicator ‘Senior management encourages information gathering and dissemination’, $\bar{x}_1 = 4.19$ ($S_1 = 0.65$) with a coefficient

of variation of 15.61%. The high means and low variability indicate high agreement among respondents on the role of the two indicators as measures of communication. By their positions, the respondents were the most likely to understand the importance of sharing information with organisational members.

The high rating of chief executive officer communication is consistent with Klimeš (2015), Harrison (2020), Men, (2015), and Claude and Andreas (2020) among others. Zerfass *et al.* (2013, as cited by Klimeš, 2015), finds that owing to their positioning, chief executive officer symbolic power implicates positively among other variables organisational effectiveness. Klimeš (2015) adds that chief executive officer's personal reputation, chief executive officer's communication skills in interpersonal and small group settings, chief executive officer's knowledge of strategic communication, positioning of the chief executive officer, Specific communication instruments of the chief executive officer are factors in chief executive officer communication.

Harrison (2020) reports studies, such as Galunic and Hermreck (2012) that find communication by the chief executive officer the most preferred when communicating organisational issues. According to White *et al.* (2010), direct communication from the top, notably the chief executive officer, conveyed to employees the sense that the information they received was full, making them feel significant. Men (2015) reported the positive influence of social media presence of the chief executive officer. Claude and Andreas (2020) found the most prominent communication role of chief executive officer to be in engendering trust.

But the high rating on chief executive officer emphasis is inconsistent with a number of authors among them Harrison (2020), Friesl and Kwon (2017), Shimizu (2017), Eisenhauer (2015), Riah (2015), Kim (2015), and Tos *et al.* (2012). Harrison (2020) reports low trust for chief executive officers. Shimizu (2017) finds sender bias endemic in top management communication while Friesl and Kwon (2017) report that top management can engender resistance to bottom-up initiatives, which in this study's view, could stifle feedback in future. Riah (2015) and Eisenhauer (2015) suggest that communication is taken for granted, quoting George Bernard Shaw, 'The single biggest problem in communication is the illusion that it has taken place'. Riah (2015) adds that communication is prone to errors; and miscommunication is misinformation.

Eisenhauer (2015) notes under-communication, arguing the less authority one has the more information becomes misconstrued. This could be applicable to university human resource considering its hierarchical distance from top management. Tost *et al.* (2012) reinforce this view noting a leader's dominant behaviour acquiesces leading to speechlessness. Kim (2015) reports underinvestment in communication and adds, controversially, 'Academics Are Actually Not That Good At Communicating'. This is not necessarily for lack of skill.

The second indicator pertained to information sharing, a key high involvement work systems element that entails, according to Desmidt and George (2015), organisational information and organisational integration. The finding is consistent with Savolainen (2017), Alhawary *et al.* (2017), Wee (2012), and Cheng *et al.* (2009). Savolainen (2017) argues that the essence of communication is information sharing and knowledge sharing. Cheng *et al.* (2009.) find that engagement of knowledge sharing among faculty cannot be coerced. Bălău and Utz (2017) argue that information sharing is strategic behaviour and is influenced by motivation.

According to Alhawary *et al.* (2017) and Wee (2012), “Top Management Support” was the highest determinant factor of knowledge sharing. Information sharing should come naturally to higher education institutions, particularly among academics. And ideally, universities’ investment in information communication technology should be an indicator of high levels of technology-enabled information sharing. Furthermore, teamwork is a common core value among higher education institutions in Kenya.

Some literature, however, contradicts this high rating of information sharing (Duncan, 2019; Ngcamu, 2019; Johnson & Walker, 2018; Abrahamson & Goodman-Delahunty, 2014; EIU, 2008; Jones, 2007; Sonnenwald, 2006). Jones (2007) observes that wider information sharing does not necessarily translate into capability. Duncan (2019) finds the incidence of information ‘silos’ a hindrance to information sharing. Abrahamson and Goodman-Delahunty (2014) note that information sharing is problematic and the following factors are contributory in Canadian policing agencies: processes/technology, individual unwillingness, and organisational unwillingness. Sonnenwald (2006)’s outline of barriers to information sharing are particularly germane to strategy: recognition of distinct meanings of shared symbols; sharing implications of information; and interpreting emotions; re-establishing trust.

Ngcamu (2019) reports that universities in South Africa failing for academic digital leadership. According to Johnson and Walker (2018), communications and marketing functions least consulted as universities contend with a disruptive context. In their research, Al-husseini and Dosa (2017) found that knowledge sharing significantly influenced the relationship between top management support and innovation.

The response to each constituent indicator was scored on a scale of 1, indicating very low support, to 5, indicating very high support. The individual indicator scores were summed up to form a composite index score, known as the communication support index score which summarised all the two indicators into a single numeric value for each respondent. The index score varied from 2, indicating very low communication support to 10, indicating very high communication support. The higher the score, the higher was the level of communication support, and vice versa.

The composite index score had a mean score of $\bar{x} = 8.45$ and a standard deviation of $s = 1.312$. The index score was collapsed into three ordinal categories including a score of 4-9 (less support), a score of 10-14 (moderate support) and a score of 15-20 (high support). Table 86 summarises the levels of top management by communication.

Table 86

Levels of Top Management Support by Communication

Levels of support	Frequency	Per cent
Low	0	0.0
Moderate	5	16.1
High	26	83.9
Total	31	100.0

Source: research data

Table 86 indicates that 26 respondents, 83.9 per cent, had high support by communication and five respondents, 16.1 per cent, had moderate support by communication, none had low levels of support by communication. This suggests that top management of most of the institutions surveyed were highly supportive of their human resource strategy through the communication process.

A review of strategic plans of some universities in Kenya posted online indicates a prominent position of human resource issues. Strategic plans are a communication tool within the institutions. This finding, however, is not a construal that top management support by communication is necessarily effective. This finding is consistent with Sheehan (2011), Rahnama and Rahpeyma (2015), Altehrebah *et al.* (2019), Oliveira (2014), Men (2014), Borca and Baesu (2014), Dolphin (2005). Rahnama and Rahpeyma (2015) find that chief executive officer emphasis positively correlated with strategic thinking in organisations. Sheehan (2011) finds a high level of information exchange within the top management team can also assist in human resource management being heard. Mintzberg (1991, as cited by Almutairi, 2011), found managers used 40% of their time to transmit information.

Mintzberg (1980 as cited by Obiefuna, 2014) outlines the informational role of managers, and communication is central to information gathering and sharing. Altehrebah *et al.* (2019), Oliveira (2014), and Dolphin (2005), found effective communication strategies as well as superior and open communication foster commitment and engagement. Borca and Baesu (2014) found that effective communication supports managerial decision-making.

According to Putri *et al.* (2017), the nature of managerial communication has implications for key performance indicators, and thus has relevance to human resource strategy evaluation and human resource strategy control. Results from Men (2014)'s study showed that transformational leadership positively related to an organisation's symmetrical communication and the relationships between employees and organisations. Kiesnere and Baumgartner (2019) found that top management communicates new vision and expected behaviour.

But the rating is also inconsistent with, for example, Eversee (2011), Eckel and Trower (2019), Sull *et al.* (2017), Putri *et al.* (2017), Hesford *et al.* (2016), Chmielecki (2015), Beuren and Teixeira (2014), Abugre (2013), Campbell (2018), Syallow (2018), Abugre (2013), Punia and Saharan (2012). Eckel and Trower (2019) find that often, strategic plans come short of being the guiding light into the future for their disarticulation. Syallow (2018) suggest that management appears to have ceded communication to technology, forgetting the communication is behavioural that has to capture the attention of employees. Syallow (2018) also finds incidences of communication over-load and under-load common. Putri *et al.* (2017) find absence of strategic communication, particularly in performance measurement and management system.

Hesford *et al.* (2016) report ineffective communication as partly responsible for challenges in the evaluative use of the balanced scorecard. Chmielecki (2015) reports hierarchy as an impediment as does Abugre (2013) on overcentralisation. Beuren and Teixeira (2014) also found senior management communication deficiency. Kim (2015) and Eversee (2011) find underinvestment in communication problematic. Kim (2015) hypothesises about the communication challenges of academics from among whom top management in universities derive.

The response to each constituent indicator of each dimension of top management support (was scored on a scale of 1, indicating very low top management support, to 5, indicating very high top management support. Since top management support is a complex and multi-dimensional concept captured by the three dimensions with a total of 12 indicators, it was measured by a composite index score, known as overall top management support index score. The individual scores of the 12 indicators of the three dimensions for each respondent were summed up to form an overall top management support index score for each respondent.

The overall composite index score varied from 12, indicating very low top management support, to 60, indicating very high top management support. The higher the score, the higher was the overall level of top management support, and vice versa. The index score had a mean score of $\bar{x} = 46.26$ and a standard deviation of $s = 7.348$. The score was later collapsed into three ordinal categories in order to differentiate between the levels of top management support among the sampled respondents. The levels included a score of 12-27 (low use), a score of 28-44 (moderate use) and a score of 45-60 (high use). Table 87 summarises the overall levels of top management support.

Table 87

Overall Levels of Top Management

Levels of use	Frequency	Percent
Low	0	0.0
Moderate	11	35.5
High	20	64.5
Total	31	100.0

Source: research data

Table 87 indicates that 20 respondents, 64.5% had high top management support, 35.5% (11) moderate, and none had low. This suggests that the human resource strategy in universities in Kenya has high top management support by resource allocation, commitment, involvement, and communication. This could be attributed to institutions awareness of strategic human resource management (Allui & Sahni, 2017). Higher education institutions have become more interested in implementing human resource management as a full strategic partner in their operations. Human resource is vital for quality in education (Dauda & Singh, 2017).

This finding is consistent with Kezar and Holcombe (2017), Muinde *et al.* (2016), and Al Shaar, *et al.* (2015) among others. Muinde *et al.* (2016) found that top management was seen to strongly support knowledge management infrastructure in the companies listed on the Nairobi Securities Exchange in Kenya. According to Kezar and Holcombe (2017) the support of vertical leaders was crucial for the success of shared leadership initiatives. Al Shaar, *et al.* (2015) reported that the backing of top management affected the capacity of organisations to conditions themselves to contextual factors, constraints, and seizing advantageous moments.

But there are limitations to top management power. Daniel (2013) noted crumbling hierarchies adding that subordinates were no longer passive. Generally, literature on the efficacy of top management support is mixed and inconclusive. Furthermore, top management is not a common theme in inquiry for, according to Hiller and Beauchesne (2014), there is the difficulty in gaining direct access to primary data from senior executives.

4.3.5.2 Test of Hypothesis Five

Objective five was accompanied by the null hypothesis five, which stated: top management support has no significant moderating effect on the relationship between utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya. Moderation generally takes three forms: enhancing; buffering; or antagonising. To test this hypothesis, partial correlation was first used to describe the relationship between human resource strategy evaluation and performance of human resource strategy while adjusting for the effects of top management support. The researcher then solved the following structural equation to determine the significance of the moderation:

$$P = \beta_0 + \beta_1 \text{HRSE} + \beta_2 \text{TMS} + \beta_3 (\text{HRSE})(\text{TMS}) + \varepsilon.$$

The study performed a partial coefficient analysis. To determine the effect of the moderator, the study compared two coefficients of the correlation: between utilisation of human resource strategy evaluation and performance of human resource strategy; and partial correlation coefficient (r) between the independent and dependent variables, controlling the moderator variable, that is holding the moderator variable constant. As indicated in Table 4.17, the bivariate correlation between human resource strategy evaluation and Performance was $r = .61$. Table 88 summarises the partial correlation coefficient matrix between human resource strategy evaluation and performance of human resource strategy, controlling for top management support.

Table 88

Partial Correlation of first predictor and criterion controlling for moderator

Control Variable			Performance Index Score	HRSE Index Score
	Performance	Correlation	1.000	.208
Top Management Support	Index Score	Significance (2-tailed)	.	.269*
		Df	0	28
	Human Resource Strategy Evaluation Index Score	Correlation	.208	1.000
		Significance (2-tailed)	.269	.
		Df	28	0

* Not significant at the 0.05 level (2-tailed).

From Table 88 it can be observed that although there was still a positive correlation between utilisation of human resource strategy evaluation, independent variable, and performance of human resource strategy, dependent variable, in universities in Kenya, the control variable, top management support, had suppressed the relationship between the two variables.

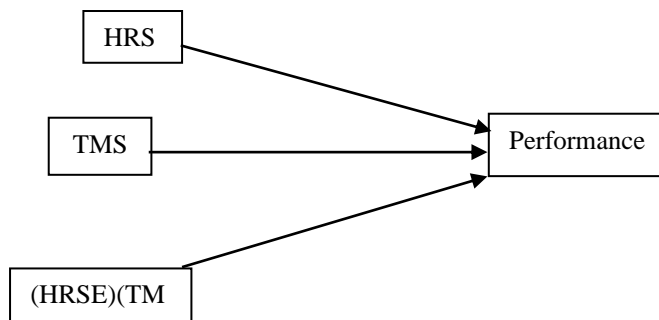
The buffering effect resulted into a weak positive partial correlation between the independent variable and dependent variable ($r = .21$). The positive partial correlation between the two variables suggests the higher the utilisation of the human resource strategy evaluation, the higher is the level of performance of an organisation, and vice versa. Still, it contrasted from the original *unmoderated* relationship of a strong positive correlation between the two variables, ($r = .61$).

The partial correlation coefficient value of $r = .21$ means that due to the presence of top management support, every unit (100%) change in the utilisation of human resource strategy evaluation leads to a .21 (21%) change in the performance of human resource strategy, a positive but lower rate than was in the direct relationship. Nevertheless, since $p\{0.269\} > 0.05$, the researcher failed to reject the null hypothesis. Thus, the hypothesis that top management support has no significant moderating effect on the relationship between utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya was confirmed. While the direct relationship between human resource strategy evaluation and performance was significant, the moderation of top management changed it into non-significance.

The study performed regression analysis. The researcher examined the moderated regression model, $P = \beta_0 + \beta_1\text{HRSE} + \beta_2\text{TMS} + \beta_3 (\text{HRSE})(\text{TMS}) + \varepsilon$, to deduce further the performance of the interaction. The question was to identify the value the interaction term would have towards improvement in how well the regression is performing. Statistically, the moderation model is analysed into three components, depicted diagrammatically in Figure7 below.

Figure 7

Components of Moderation Model



Thus, two more equations were implied:

$$P_1 = \beta_0 + \beta_1 \text{HRSE} + \varepsilon; \text{ and}$$

$$P_2 = \beta_0 + \beta_2 \text{TMS} + \varepsilon.$$

The two models also needed to be significant for moderation analysis to proceed. To perform the necessary moderation analysis, first the two predictor variables were mean-centered and the product of the mean-centred variables derived. In effect, three new variables were established: mean-centred human resource strategy evaluation; mean-centred top management support; and mean-centred human resource strategy evaluation -top management support. The researcher then ran regression analyses to determine model adequacy and fit as well as predictive power on the basis of regression coefficients.

The study regressed Performance on Human Resource Strategy Evaluation and Top Management Support. Table 89 shows model summaries for models P_1 , P_2 , and P_3 . Model P_3 is the main model with interaction effect.

Table 89*Model Summary for P₁, P₂, and P₃.*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
<i>P₁</i>	.608 ^a	.369	.347	6.75981
<i>P₂</i>	.760 ^a	.557	.563	5.53433
<i>P₃</i>	.773 ^a	.597	.552	5.59894

a. Predictors: (Constant), HRSE_TMS, Center_TMS, Center_HRSE

Table 89 shows a unit change in human resource strategy evaluation and top management support contribute to 61% and 77% to performance in models *P₁* and *P₂* respectively. Both the moderator, individually, as well as in conjunction with the independent variable contributes positively to the performance of the human resource strategy, from 0.61, to .77, to .77. This, however, is far from suggesting the presence of moderation.

The researcher also carried out Analysis of Variance to determine the adequacy of the models. Table 90 indicates the ANOVA results that were all significant, affirming the fitness of the models.

Table 90*Analysis of Variance F-Test Results for Models P₁, P₂, and P₃.*

Model	Df	F	Sig.
<i>P₁</i>	(1, 29)	16.975	.000 ^b
<i>P₂</i>	(1, 28)	30.346	.000 ^b
<i>P₃</i>	(3, 27)	13.339	.000 ^b

a. Dependent Variable: Performance

b. Predictors: (Constant), HRSE_TMS, Center_TMS, Center_HRSE

Finally, the research sought to establish regression coefficients for the three models and their significance, significance of the first two models being a precondition for further moderation analysis. Results are as tables 91, 92, and 93 show.

Table 91

Regression Coefficients for Model P₁

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	48.672	1.215		40.075	.000
	Center_HRSE	.679	.165	.608	4.120	.000

a. Dependent Variable: Performance

Table 92

Regression Coefficients for Model P₂

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	48.806	.994		49.101	.000
	Center_TMS	.865	.138	.760	6.292	.000

a. Dependent Variable: Performance

Table 93*Regression Coefficients for Model P₃*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	48.556	1.198		40.521	.000
	Center_HRSE	.214	.187	.192	1.150	.260
	Center_TMS	.720	.188	.633	3.835	.001
	HRSE_TMS	.006	.018	.040	.324	.749

a. Dependent Variable: Performance

In models P_1 and P_2 , the relationship between the predictors and the criterion was positive and significant ($b = .68, p\{0.000\} < 0.05$; $b = .87, p\{0.000\} < .05$), thereby satisfying the preliminary conditions for moderation analysis. But results from the third model, show obvious non-significance of the interaction term ($b = .006, p\{.749\} > .05$). Just like the partial correlation, the results do not establish a significant moderating role of top management support on the relationship between human resource strategy evaluation and performance of the human resource strategy. In addition, under moderation, human resource strategy evaluation has not retained significance retained significance, ($p = .060 > .05$).

Accordingly, the researcher failed to reject the null hypothesis five. With the coefficients in the table above, the moderation regression model reads as follows: $P = 48.56 + .21HRSE + .72TMS + .006(HRSE)(TMS)$.

As is evident, the interaction term, top management support, slows down the independent variable, from $b = .35$ in the *unmoderated* relationship to $b = .19$ in the moderated model. In terms of the significance of the coefficients, it is clear from the table that $p\{0.749\} > 0.05$, an obvious case of non-significance for the interaction term.

Moderation has also converted human resource strategy evaluation into non-significance, $p\{0.260\} > 0.05$. Accordingly, the researcher failed to reject the hypothesis that top management support has no significant effect on the relationship between human resource strategy evaluation and the performance of the human resource strategy in universities in Kenya. That top management support buffers the relationship could be attributed to some top management support behaviours.

This finding is consistent with Boada-Cuerva *et al.* (2019), Junior *et al.* (2018), Friesl and Kwon (2017), Birken *et al.* (2013), Daniel (2013), Lee and Schaefer (2015), deSchreveland and Jost (2013), and Punia and Saharan (2012). Khan *et al.* (2014, as cited by Boada-Cuerva *et al.* (2019) found top management support scarce and less coordinated. Friesl and Kwon (2017) reported incidences where top management was resistant to bottom-up initiatives for change. Lee and Schaefer (2015) reported moderate-to-poor rating of top managers' support in healthcare facilities.

According to Daniel (2013), organisational structures have less influence on how work gets done as strict hierarchies and top-down communication surrender to flatter, fairly dispersed and flexible structures. Universities appear to be still embedded in the 'old normal'. de Schreveland and Jost (2013) observes that both management and leadership are new for universities, noting an inadequacy in both management systems as well as management know-how. Punia and Saharan (2012) agree while noting underinvestment in human resource by universities. And Junior *et al.* (2018) argue that the endemic conflict between top administration and the academic sectors reconfigure strategy. Generally, the hierarchical distance between top management and HR affects the mutual impacts among them. Schuler and Walker (1990) conceptualisation of strategy excludes the role of top management.

But this result is inconsistent with literature that privileges top management support such as Boada-Cuerva *et al.* (2019), Kiesnere and Baumgartner (2019), Ali, *et al.* (2018), Mkonya *et al.* (2018), Kezar and Holcombe (2017), Pham *et al.* (2016), Iqbal *et al.* (2015), Boonstra (2013), Young and Poon (2013), and Van Ameijde *et al.*, 2009). Boada-Cuerva *et al.* (2019) note the vital but under-researched role of top management to human resource management. Kiesnere and Baumgartner (2019) report the indispensability of top management support for sustainability development. Ali *et al.* (2018) amplified the resourcing aspect of top management support for effective human resource development in Pakistani higher education. According to Mkonya *et al.* (2018), top management support enhances quality of accounting information systems.

Kezar and Holcombe (2017) find the support from vertical leaders an important condition for functional shared leadership as do Mkonya *et al.* (2018) with respect to accounting. Pham *et al.* (2016) report the causal chain between top management support and performance involving employee satisfaction and employee commitment both very much human resource elements. Iqbal *et al.* (2015) find a positive contribution of top management support despite negative impact. According to Young and Poon (2013), project success is inconceivable without top management support. But Boonstra (2013) found the level of support high although the departures of a top manager could weaken support.

This study yielded another interesting finding to support the role of top management. Table 94 shows the model summary for the regression of performance on both human resource strategy evaluation and top management support.

Table 94*Model Summary for criterion, the first predictor, and moderator*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.772 ^a	.596	.567	5.50872

a. Predictors: (Constant), Center_TMS, Center_HRSE

The model was identical to $P = \beta_0 + \beta_1\text{HRSE} + \beta_2\text{TMS} + \beta_3\text{HRSE_TMS} + \varepsilon$, indicating that top management support would perform, at least statistically, just as well as a direct independent variable as a moderator. In practice, however, top management teams formulate strategic decision but influences (moderates) the implementation of tactical activities (Eriksson, Robertson & Näppä, 2020). Thus, a direct relationship would be an exception rather than the norm.

4.3.6 Findings for Objective Six

The sixth objective of this study sought to determine the moderating effect of top management support on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya. The objective was informed by the realisation that like all strategy, human resource strategy has to be adequately steered if it has to achieve strategic objectives. Strategy is a traditionally top management activity; thus, the steering role of top management arises from its overarching role in overall strategy control. Top management is responsible for overall organisational performance of which corporate, business strategy, and human resource strategy are constituents.

But then top management teams are invariably indirectly involved, which makes their capacity to effectively control problematic. Top management support is remote and impersonal. Their power, therefore, is in knowledge they possess (Snell, 1992). But according to Nieto-Rodriguez (2010) in relation to Snell (1992)'s view, top executives have a dearth of knowledge regarding key strategic initiatives their own organisations. If this holds for corporate entities, it is even acute for universities where top management teams composition is short of professional managers. These arguments inform the sixth hypothesis in this study that top management support has no effect on the relationship between human resource strategy control and performance of the human resource strategy in universities in Kenya.

The variable top management support was comprehensively covered in the fifth objectives. Similarly, human resource strategy control was comprehensively presented in the second objective of this study. The researcher used the synthesis of the findings in those sections to test the sixth null hypothesis of this study.

4.3.6.2 Test of Hypothesis Six

The sixth objective was accompanied by the sixth null hypothesis that stated: top management support has no significant moderating effect on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya. To test this hypothesis, the researcher performed two analyses: correlation; and regression. Correlations, simple as well as partial, were used as a basis for affirming association for further moderation analysis. Partial correlation was used to show the relationship between human resource strategy control (independent variable) and performance of human resource strategy (dependent variable) while adjusting for the effect of top management support (the moderating variable).

To ascertain the consequence of the mediator variable, the study compared the correlation coefficient of the original correlation between independent variable and dependent variable (in Objective One) and partial correlation coefficient (r) after controlling the mediator variable. The researcher then solved the following structural equation to determine the significance of the moderator: $P = \beta_0 + \beta_1HRSC + \beta_2TMS + \beta_3(HRSC)(TMS) + \epsilon$.

The study carried out a partial correlation analysis controlling for Top Management Support. For partial correlation to be used, the three variables (independent, dependent and moderator) were quantified and measured on a continuous (ratio) scale using the generated composite index scores. Table 95 summarised the partial correlation coefficient matrix of human resource strategy control and performance of human resource strategy while controlling for top management support in an organisation.

Table 95

Partial Correlation of first predictor and criterion controlling for the moderator

Control Variable			Performance of Human Resource Strategy Index Score	Human Resource Strategy Control Index score
Overall Top Management Support Index Score	Performance Index Score	Correlation	1.000	.399
		Sig. (2-tailed)	.	.029
		Df	0	28
	Human Resource Strategy Control Index Score	Correlation	.399	1.000
Sig. (2-tailed)		.029	.	
		Df	28	0

*. Correlation is significant at the 0.05 level (2-tailed).

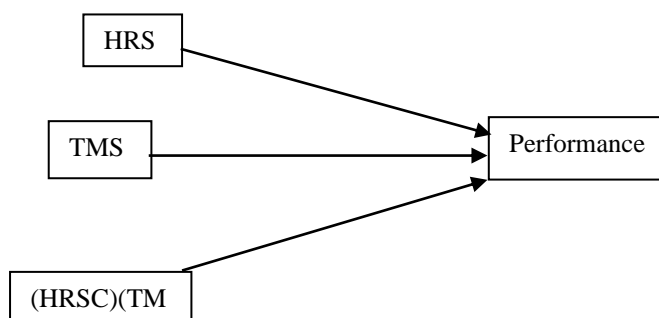
The table indicates a moderate, positive partial correlation between utilisation of human resource strategy control and the performance of the human resource strategy in the presence of top management moderation. The relationship suggests the higher the utilisation of the human resource strategy control as moderated by top management support, the higher the level of performance of the human resource strategy. The partial correlation coefficient of $r(28) = .399$ (rounded off to .40) hints that by controlling top management support, the strength by which the utilisation of human resource strategy control affects the performance of the human resource strategy is .4 (40%).

The relationship is, however, weaker compared to the direct (unmoderated) association between the independent and dependent variables. The strength of the direct relationship was strong positive correlation between the two variables, $r(29) = .71$. The control variable (top management support) suppressed the relationship.

The study then performed regression analysis. Statistically, the moderation model, $P_1 = \beta_0 + \beta_1\text{HRSC} + \beta_2\text{TMS} + \beta_3(\text{HRSC})(\text{TMS}) + \epsilon$, had three components, depicted diagrammatically (Memon *et al.*, 2019; Ponchio & Correio, 2018) in the Figure 8 below.

Figure 8

Moderation model components



Thus, moderation required analysis of two other models, their significance being a condition for further moderation analysis: $P_2 = \beta_2 + \beta_2HRSC + \varepsilon_2$; and $P_3 = \beta_3 + \beta_3TMS + \varepsilon_3$. Tables 96, 97, and 98 depict results of the analyses of the three models, labelled P_1 , P_2 , and P_3 .

Table 96

Model Summary for P_1 , P_2 , and P_3 .

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
P_1	.730	.533	.517	5.81622
P_2	.760 ^a	.577	.563	5.53433
P_3	.808 ^a	.653	.615	5.19827

a. Predictors: (Constant), HRSC_TMS, Centre_HRSC, Centre_TMS.

From Table 96, it is decipherable that a unit change in human resource strategy control contributes to 73% and 81% in performance for models P_1 and P_2 respectively. In the face of moderation, P_3 , the independent variable contributes 81% change in performance. On the face of it, moderation is enhancing; but further analysis is necessary to establish significance. The researcher was also able to establish model fitness for the three equations. Table 97, a summary of the three ANOVA tests, confirms the models as fit.

Table 97*Analysis of Variance F-Test for Models P₁, P₂, and P₃.*

Model	Df	F	Sig.
<i>P</i> ₂	(1, 29)	33.103	.000
<i>P</i> ₂	(1, 29)	39.590	.000
<i>P</i> ₃	(3, 27)	16.915	.000

- a. Dependent Variable: Performance
- b. Predictors: (Constant), Mean-centred HRSC, mean-centred TMS, mean-centred HRSC_TMS.

Finally, to confirm that presence of moderation or otherwise, the research tested the coefficients of the three models for significance. To perform the necessary moderation analysis, first the two predictor variables were mean-centered and their product obtained. Tables 98, 99, and 100 indicate the coefficients and their levels of significance.

Table 98*Regression Coefficients for Model P₁.*

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	48.920	1.045		46.822	.000
	Center_HRSC	.708	.123	.730	5.753	.000

- a. Dependent Variable: Performance

Table 99*Regression Coefficients for Model P₂*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	48.806	.994		49.101	.000
	Center_TMS	.865	.138	.760	6.292	.000

a. Dependent Variable: Performance

Table 100*Regression Coefficients for Model P₃*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	48.900	1.131		43.232	.000
	Center_HRSC	.376	.155	.388	2.419	.023
	Center_TMS	.554	.183	.486	3.033	.005
	HRSC_TMS	-.001	.015	-.006	-.052	.959

a. Dependent variable: Performance

In models P_1 and P_2 , the relationship between the predictors and the criterion was positive and significant ($b = .71, p\{0.000\} < 0.05$; $b = .87, p\{0.000\} < .05$), thereby satisfying the preliminary conditions for moderation analysis. But results from the main moderation model show obvious non-significance of the interaction term ($b = -.001, p\{0.959\} > 0.05$). Just like the partial correlation, the results do not establish a significant moderating role of top management support on the relationship between human resource strategy control and performance of the human resource strategy.

Accordingly, the researcher failed to reject the null hypothesis six. Under moderation, however, human resource strategy control has retained significance, $p\{0.023 < 0.05$, albeit a

less strong association compared to the direct relationship. With the coefficients in the table above, the moderation regression model reads as follows:

$$P = 48.9 + .37HRSC + .55TMS - .001(HRSC)(TMS).$$

The non-significance of moderation in this study is consistent with literature such as Boada-Cuerva *et al.* (2019), Khan *et al.* (2014), The Economist Intelligence Unit (2013), Savaneviciene and Stankeviciute (2011), Nieto-Rodriquez (2010), and Snell (1992). In the very first place, Khan *et al.* (2014) report that the moderating role of top management support is rarely covered in management literature. Indeed, literature surveyed found no such study in relations to universities in Kenya. Boada-Cuerva *et al.* (2019) have found that top management continues to be the missing link in strategic human resource management. Khan *et al.* (2014) that top management cannot be everywhere.

According to The Economist Intelligence Unit (2013), C-suite executives are often found missing in the conduct of strategy. For Savaneviciene and Stankeviciute (2011), there are gaps in interaction between top and line management, obstacles being related to hierarchy, opportunism, as well as inadequate vertical and horizontal communication. And Nieto-Rodriquez (2010) and Snell (1992) found incomplete knowledge of executives about their own strategic initiatives a barrier to strategic control. Yet knowledge is key in leadership (Adair, 2010).

But literature in support of the significance of top management support is also preponderant for example Masrek *et al.* (2019), Al-husseini and Dosa (2017), Stanley and Karolin (2016), Young and Poon (2010), Kirrane *et al.* (2016). Masrek *et al.* (2019) found top management

support, as a direct independent variable, significant. Al-husseini and Dosa (2017) also found top management support, as independent variable, positively related to innovation in Iraqi higher education institutions.

According to Stanley and Karolin (2016), the top-level manager is responsible for controlling and overseeing the entire organisation. Kirrane *et al.* (2016) found Top management support for change and readiness for change is significant, management support being the independent variable. And Young and Poon (2010) in assessing adequacy of top management support found as significant strength of commitment, sustainability of top manager’s commitment, and speed of response to issues.

The model summary for P_3 shows a high, positive $R = .808$. This appears to be at odds with the low negative coefficient of the interaction term. In addition, Table 101 shows that model P_3 was identical to the regression model with human resource strategy control and top management support as regressors.

Table 101

Model Summary for criterion, second predictor, and moderator

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808 ^a	.653	.628	5.10486

a. Predictors: (Constant), Center_TMS, Center_HRSC

As in Objective Five, questions could arise as to the suitability of top management support as a moderator when it works just as equally well as a direct predictor. This could be attributable to differences in human resource job hierarchies across sectors and even organisations.

Where there are human resource directors, they are likely to be sitting at top management and thereby exert a near-direct influence. Even then, the human resource strategy will still be removed from the ambit of direct top management.

Table 102: Summary of Test of Hypotheses

No.	Hypothesis	Test applied	Decision
1.	There is no significant relationship between utilisation of human resources strategy evaluation and performance of human resource strategy in universities in Kenya	Pearson's <i>r</i> : moderate & significant ($r(29) = .61, p\{0.000\} < 0.05$; Regression: <i>beta</i> positive & statistically significant, $b = .61, p\{0.000\} < 0.05$	Rejected
2.	There is no significant relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya.	Pearsons' <i>r</i> was high and significant, $r(29) = .71, p\{0.000\} < 0.05$. Regression: <i>beta</i> positive & statistically significant ($b = .71, p\{0.000\} < 0.05$)	Rejected
3.	Information characteristics have no significant mediation effect on the relationship between utilisation of human resource strategy evaluation and performance of human resource strategy in universities in Kenya.	Partial <i>r</i> , HRSE-P controlling for IC was weak but significant: $r(28) = .39, p\{0.034\} < 0.05$; Regression of path analyses: IC-HRSE, <i>beta</i> was positive and significant, $b = .59, p\{0.000\} < 0.05$; P-IC, <i>beta</i> was positive and significant, $b = .61, p\{0.000\} < 0.05$; P-HRSE, <i>beta</i> was positive and significant, $b = .61, p\{0.000\} < 0.05$; P-HRSE-IC, <i>beta</i> for both HRSE and IC were positive and significant, $.38, p\{0.032\}, .38, p\{0.034\}$; Sobel test significant, $z = 2.86, p\{0.000\} < 0.05$.	Rejected
4.	Information characteristics have no significant mediation effect on the relationship between utilisation of human resource strategy control and performance of human resource strategy in universities in Kenya.	Partial <i>r</i> , HRSC-P controlling for IC, $r(28) = .60, p\{0.000\} < 0.05$; Regression of path analyses: IC-HRSC, <i>beta</i> was positive and significant, $b = .59, p\{0.000\} < 0.05$; P-IC, <i>beta</i> was positive and significant, $b = .61, p\{0.000\} < 0.05$; P-HRSC, <i>beta</i> was positive and significant, $b = .61, p\{0.000\} < 0.05$; P-HRSC-IC, <i>beta</i> for both HRSC and IC were positive and significant, $.38, p\{0.032\}, .38, p\{0.034\}$; Sobel test significant, $z = 2.86, p\{0.000\} < 0.05$	Rejected
5.	Top management support has no significant moderating effect on the relationship between utilisation of human resources strategic evaluation and performance in of human resource strategy universities in Kenya.	Partial <i>r</i> , HSRE-P controlling for TMS was weak and not significant, $r(28) = .21, p\{0.269\} > 0.05$. Regression: <i>beta</i> for HRSE centred was significant $b = .68, p\{0.000\} < 0.05$; <i>beta</i> for TMS centred was significant, $b = .87, p\{0.000\} < 0.05$; but <i>beta</i> for HRSE-TMS centred not statistically significant, $b = .006, p\{0.95\} > 0.05$.	Failed to reject
6.	Top management support has no significant moderating effect on the relationship between utilisation of human resources strategic control and performance of human resource strategy in universities in Kenya.	Partial <i>r</i> , HSRC-P controlling for TMS was weak but significant, $r(28) = .40, p\{0.029\} < 0.05$. Regression: <i>beta</i> for HRSC centred was significant $b = .38, p\{0.023\} < 0.05$; <i>beta</i> for TMS centred was significant, $b = .55, p\{0.005\} < 0.05$; but <i>beta</i> for HRSC-TMS centred was not statistically significant, $b = -.001, p\{0.96\} > 0.05$	Failed to reject

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the researcher presents a summary of the findings from the study, draws conclusions on the basis of the findings objective by objective, and makes recommendations for policy and further researcher. The presentation is based on the objectives and hypotheses formulated in Chapter One.

5.2 Summary

The purpose of this study was to investigate the relationship between human resource strategy evaluation, human resource strategy control, and performance of human resource strategy in the presence of simple mediation of information characteristics and simple moderation of top management support in the context of higher education in Kenya. Specifically, the study sought to domesticate the principles of strategy evaluation and control to human resource strategy, an academic effort that has, quite curiously, not been attempted in the field of strategic human resource management as applied in in the higher education.

The focus of human resource strategy evaluation was on the principles of Consistency, Consonance, Feasibility, and Advantage. Human resource strategy control revolved around Premise Control, Implementation Control, Surveillance Control, and Special Alerts Control. The research conceptualised information characteristics as strategic, tactical, and operational; and top management support in terms of resource allocation, commitment, involvement, and communication. The summary of findings about the six objectives follows below.

5.2.1 Human Resource Strategy Evaluation and Performance

The first objective of the study sought to determine the relationship between the utilisation of the human resource strategy evaluation and the performance of the human resource strategy in universities in Kenya. Strategic evaluation is about establishing the functioning and worth of a course of action designed to accomplish objectives (Hieu & Nwachukwu, 2019), to ascertain the validity of the strategy selected as well as its contribution (Menon, 2020).

In this case, the evaluand was human resource strategy, expressed or implied, in universities in Kenya. As human resource strategy is cascaded from overall strategy, the researcher sought to apply the strategy evaluation principles of Consistency, Consonance, Feasibility, and Advantage to human resource strategy evaluation. Pressure for human resource management to be a contributor to strategic goals has made the need for evaluation imperative and urgent.

Respondents in this study rated Consistency, Consonance, Feasibility, and Advantage above mean scores and low variability, suggesting agreement among respondents about the appropriateness of these dimensions as measures of human resource strategy evaluation. The principles also produced moderate to high, positive and significant correlations with performance. Overall, the result of the relationship between utilisation of human resource strategy evaluation and performance of human resource strategy was positive and significant. The study found a positive and significant regression coefficient. Modelling of human resource strategy evaluation and performance was found to be fit.

Strategy evaluation principles as applied to human resource strategy, therefore, were strongly and positively correlated with, and predicted human resource strategy performance in

universities in Kenya. These results imply that human resource practitioners can utilise strategy evaluation dimensions as proposed by Rumelt (1979/1980) in planning and designing performance management systems. One way is in designing key performance indicators, both leading indicators and lagging indicators. The evaluation principles also confer meaning to measurement practices. In universities where autonomous, knowledge work is dominant, performance management practices would be effective to the extent that strong philosophical principles underpin them. Strategy evaluation principles provide such meaningful rationale.

5.2.2 Human resources strategy control and performance

The second objective of the study sought to establish the relationship between the utilisation of the human resource strategy control and performance of the human resource strategy in universities in Kenya. Human resource strategy control is about keeping mission-critical human resource practices on track and correcting any deviations thereof. The purpose is to ensure non-derailment of Human resource strategy and with it the entire strategising entity. The process cascades from overall strategic based on four dimensions: Premise Control; Implementation Control; Surveillance Control; and Special Alerts Control. High velocity change coupled with rising complexity in context make rigorous human resource strategy control imperative.

All human resource strategy control dimensions were rated above average with low variability, an indication of agreement among respondents as to their applicability to human resource strategy. Individual relationships with performance of human resource strategy were positive and significant. Overall, human resource strategy control had a positive and significant correlation with performance of human resource strategy.

The regression coefficient was positive and significant. And the study found modeling of human resource strategy control and the performance of human resource strategy to be fit.

The principles of strategy control as applied to human resource strategy, therefore, were strongly and positively correlated with, and predicted human resource strategy performance in universities in Kenya. These results imply that human resource practitioners can utilise strategy control in steering human resource initiatives. Control in universities, where autonomous thinking is dominant can be a moot point. The reason why managerial work is frowned upon in universities is essentially because of the implied element of control. The strategy control principles would confer meaning to human resource practices, making them appear less intrusive and stifling.

5.2.3 Human Resource Strategy Evaluation, Information Characteristics and performance

The third objective of the study sought to find out the mediating effect of information characteristics on the relationship between human resource strategy evaluation and performance of the human resource strategy in universities in Kenya. In a knowledge economy, information is a key input in all endeavours. And so are the features of that information. To establish mediation, path analyses between variables were carried out on the basis of the following equations:

The direct path between human resource strategy evaluation and information characteristics was positive and significant. Regression was significant. The regression model was significant; and model fitness was affirmed. The direct path between human resource strategy evaluation and P was positive and significant as was regression whose model fitness the

study confirmed. These conditions were satisfied as the initial conditions for mediation analysis.

In the model, both the independent variable (IV) and intervening variable (IVV) were significant. Ideally under mediation, the IV should decline in significance. Thus, to determine significance, the path analyses were subjected to Sobel's test to establish the significance of the product, *ab*. The results were significant. The mediation of information characteristics on the relationship between human resource strategy evaluation and human resource strategy performance was found to be significant. The indirect effect was significant.

These results indicate that the variable 'Information Characteristics' at all levels of the institutions is relevant to the process of strategy evaluation in universities in Kenya. Characterising information has implications for measurement of strategic initiatives without which all evaluation would likely not be effective. Interpretations about practices depend on information. In universities, different conceptions of useful information are bound to occur because of the diversity in thought about the world and organisations. Performance management systems have faced the challenge of what to measure and how to measure. Thus, characterising information enables discrimination of what is essential, important and useful that in turn supports decision-making on the basis of knowledgeable generated from information.

5.2.4 Human Resource Strategy Control, Information Characteristics and Performance

In the fourth objective, the research set out to ascertain the mediating effect of information characteristics (*IC*) on the association between human resource strategy control (*HRSC*) and performance (*P*) of human resource strategy performance in universities in Kenya.

In strategy control, information feeds both the feedback and feedforward processes. And so are the features of that information. To establish mediation, path analyses between variables were carried out.

The direct path of human resource strategy control and information characteristics was found to be significant as was regression. Model fitness was affirmed. The direct path of information characteristics and P was positive and significant as was regression. Model fitness was significant. And the direct path of human resource strategy control and P was also positive and significant as was regression with model fitness affirmed. These significant analyses set the stage for mediation analysis.

In the fourth model involving both human resource strategy control and information characteristics as predictors of performance of human resource strategy, model fitness was affirmed. However, both regression coefficients were positive and significant. Ideally under mediation, the independent variable (IV) should decline in significance relative to the mediator. Thus, to determine significance, the path analyses were subjected to Sobel's test for product, human resource strategy control -IC and IC-P. The results were significant. The mediation of information characteristics on the relationship between human resource strategy evaluation and human resource strategy performance was found to be significant. The Sobel test statistic was and proved that the indirect effect was significant.

These results indicate that the variable 'Information Characteristics' at all levels of the institutions is relevant to the process of human strategy control in universities in Kenya. Strategic control is essentially feedforward control, which is mainly preventive in the acquisition, maintenance, and separation with people. Identifying information that is

essential, important and useful for input into the control system is enhanced by competent characterisation of information. Human resources have to institute measures to enhance competent characterisation of information given that in universities where siloed thinking is likely to be entrenched, leading to diverse interpretations and causing resistance to change, big picture thinking has to be encouraged by among other things building common ground for understanding on the basis of agreed upon character of information to be collected and shared in relation to performance.

5.2.5 Human Resources Strategy Evaluation, Top Management Support and Performance

The fifth objective sought to examine the moderating role of top management support on the relationship between the utilisation of human resource strategy evaluation and performance of the human resource strategy performance in universities in Kenya. Respondents rated above average with low to moderate variability all the indicators of top management support, namely resource allocation, commitment, involvement, and communication. And overall levels of top management support were reported moderate to high.

The study found models the interaction term in model was found to be not significant. Human resource strategy evaluation in the presence of moderation was also found to be not significant. The moderator slowed down the independent variable. The moderation of top management support on the relationship between human resource strategy evaluation and human resource strategy performance was found to be insignificant.

These results imply that in universities, the functional diversity of top management teams makes interpretations of human resource strategic issues and related key performance

indicators, both lagging and leading, intractable. Thus, the position of human resource needs to be strengthened to be able to serve the integrating role and create common ground about performance measures and evaluations among the diverse stakeholders. A strong human resource position should also be able to harness the benefits accruing from the wider human resource management ecosystem.

5.2.6 Human Resources Strategy Control, Top Management Support and Performance

In the sixth objective, the research sought to demonstrate the moderating role of top management support on the association between human strategy control and performance of human resource strategy in universities in Kenya. Respondents rated above average with low to moderate variability all the indicators of top management support, namely resource allocation, commitment, involvement, and communication. And overall levels of top management support were reported moderate to high.

Although the initial conditions for moderation analysis were met, the interaction term in model was not significant. Thus, the moderating effect of top management support on the relationship between utilisation of human resource strategy control and human resource strategy performance was not proven.

This result is not anomalous for two reasons: one, top management, though with overall responsibility for steering the strategy, yet cannot be all over the institution. Secondly, hierarchical distance between top management and human resource and is pronounced. Nevertheless, top management teams need to evaluate their role in human resource strategy given the labour-intensive nature of universities. In particular, raising the standing of the HR faction within the hierarchy would compensate for the distance. Human resource

professionals, on the other hand, need to formulate strategies to address the distal nature of top management- human resource interaction. In terms of theory, further research would be welcome to inquire into person-based factors around this non-significance such for example as to whether the aloofness and scepticism by some TMS members could be a factor.

5.3 Conclusions

The study found a positive and significant relationship between utilisation of human strategy evaluation and the performance of human resource strategy in universities in Kenya. Thus, the researcher rejected the hypothesis related to this objective that stated ‘There is no significant relationship between the utilisation of the human strategy evaluation and the performance of the human resource strategy in universities in Kenya’.

In the second objective, the study established a positive and significant relationship between utilisation of human strategy control and the performance of human resource strategy in universities in Kenya. Accordingly, the researcher rejected the second null hypothesis, which stated ‘There is no significant relationship between utilisation of human strategy control and the performance of human resource strategy in universities in Kenya’.

Results for the third objective found a positive and significant mediation effect of information characteristics on the relationship between human resource strategy evaluation and performance in universities in Kenya. The researcher, therefore, rejected the related third hypothesis that stated ‘There is no significant mediation effect of information characteristics on the relationship between the utilisation of the human resource strategy evaluation and performance of the human resource strategy in universities in Kenya’.

In the fourth objective, the study ascertained a positive and significant mediation effect of information characteristics on the relationship between human resource strategy control and performance in universities in Kenya. Accordingly, the investigator rejected the fourth hypothesis that stated ‘There is no significant mediation effect of information characteristics on the relationship between the utilisation of the human resource strategy control and performance of the human resource strategy in universities in Kenya’.

Analysis of findings for the fifth objective found a positive but non-significant moderating role of top management support on the relationship between human resource strategy evaluation and performance in universities in Kenya. Consequently, the researcher failed to reject the fifth hypothesis that stated ‘There is no significant moderating role of top management support on the relationship between the utilisation of the human resource strategy evaluation and performance of the human resource strategy in universities in Kenya’.

The study found a positive but non-significant moderating role of top management support on the relationship between human resource strategy control and performance in universities in Kenya. Accordingly, the study failed to reject the sixth hypothesis, which stated ‘There is no significant moderating role of top management support on the relationship between the utilisation human resource strategy control and performance of the human resource strategy in universities in Kenya’.

The overall purpose of this study was to inquire into the interplay among human resource strategy evaluation, human resource strategy control, information characteristics, and top management support in the higher education environment in Kenya with specific reference to

universities. More specifically, the focus was on the utilisation of the elements of strategic evaluation and control in human resource strategy.

Reliability and validity tests established the appropriateness of these elements in human resource strategy. Analysis and interpretation of the findings similarly confirmed the relevance of strategic evaluation and control dimensions to the human resource strategy process. This conclusion strengthens human resource theory. It also strengthens human resource practice: in higher education where knowledge work is preeminent, practices such as appraisal have to be meaningful; strategy evaluation and control assumptions and dimensions confer such meaning to human resource policies and practices.

5.4 Recommendations

5.4.1 Policy Recommendation

The findings of this study have far reaching implications for human resource policy formulation in universities. Of particular significance is the structural position of the human resource unit on the hierarchy of the institutions. This position needs to be strengthened to allow the specialists to infuse the strategy agenda with mission-critical human resource issues. This empowers not only the function but the employees as well. The findings suggest top management to be distant to the human resource function, which makes this recommendation vital and urgent.

Secondly, the findings have implications for controlling practices in higher education. As universities are based on a strong sense of autonomy, it is necessary to base controls on a philosophy that makes sense to staff. Human resource strategy control dimensions provide this rationale.

The findings in this study have implications for performance management at universities. Human resource strategy evaluation can strengthen these systems by infusing the dimensions into the key performance indicators or human resource analytics. The identity crisis universities face means that they have to clearly show, with stakeholders in mind, what their contribution is, which calls for performance measurement systems that go beyond effectiveness and efficiency. Third mission concerns are best approached with the strategy evaluations dimensions. These findings also suggest the need to revisit information systems design to link strategic, tactical, and operational information to stimulate big picture thinking among staff as environmental pressures make the need for strategic thinking skills imperative and urgent throughout organisations.

5.4.2 Recommendations for Further Research

It would be unconvincing for any investigation to establish the consequences of strategy in human resource management without testing for human resource strategy evaluation and strategy control. It is the evidential mechanism to establish causality between strategies at any level with performance. To strengthen this process further, the researcher recommends that future studies sample heads of department and staff, both academic and administrative to redress any limitations associated with one-person bias in sampling. In addition, cross-sectional designs are obviously limited with respect to human resource strategy evaluation and control, which are long-term in nature (Liao, 2006), and which are adequately established through longitudinal studies. Furthermore, there is need for research to focus on scale development for both human resource strategy evaluation and human resource strategy control. Objectives three and four tested only simple mediation while objective five and six tested simple moderation. Future studies could integrate mediation and moderation (Karazsia et al., 2014). That would involve testing for moderated mediation and mediated moderation

so as proffer a more accurate approximation of how real-world human strategy evaluation, human strategy control, information characteristics, top management support, and performance work.

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APPENDICES

Appendix I: Letter of Transmittal of Questionnaire

Isaac M. Ole Sophia
Kabarak University
P.O. Box Private Bag Kabarak
Tel: 0733 958 511/0707 362 149. Email: masibayi@kabarak.ac.ke

Date: 31/07/2019

Vice Chancellor,

Dear Prof.

RE: PARTICIPATION IN RESEARCH

I, the above-named, am pursuing the degree of Doctor of Philosophy (PhD) in Business Administration at the Kabarak University, Kenya. As part of the degree requirements, I am carrying out an empirical research on,

***“Human Resource Strategy Evaluation and Control, Information Characteristics, and Performance in Higher Education Institutions:
A Survey of Universities in Kenya.”***

As universities experience fast-paced change, there is need to inquire into the status of human resource management systems with a view to extend theory and strengthen HR practice given that universities the world over are labour intensive, so that environmental change implicates human resource in a significant way. I have picked your University, in a random way, for inclusion in the study; the Registrar (Administration) or an equivalent position in the management hierarchy, is the respondent. Attached herewith do, please, find the research instrument. Kindly allow your Registrar or the equivalent to complete and have it mailed back, if convenient, within a week.

Your University's participation is being treated with utmost respect and confidentiality and data thereof will be used for this research purpose alone and **SHALL NOT** be made available to a third party whatsoever. I have also attached herewith the relevant research authorisation as required by the law (NACOSTI).

I thank you for accepting to participate and thereby lending support to both HR scholarship and practice.

Yours sincerely,

Isaac M. Ole Sophia
Encls.

Appendix II Research Assistant Introductory Letter

Isaac M. Ole Sophia
P.O. Box Private Bag Kabarak
Tel.: +254 733 958 511/+254 362 149
Email: isaac.sopai012@gmail.com

TO WHOM IT MAY CONCERN

This is to confirm that I have appointed..... to serve as a research assistant to collect data in a research on:

***Human Resource Strategy Evaluation and Control,
Information Characteristics and Performance in Higher
Education: A Survey of Universities in Kenya***

The study, which is academic in nature has received the necessary recommendation by Kabarak University and authorisation by the Government of Kenya through the National Commission for Science, Technology and Innovation (NACOSTI).

I humbly request the identified respondent to accord the research assistant all support to make this exercise fruitful.

Faithfully submitted,

Isaac M. Ole Sophia
RESEARCHER

July 31, 2019

Appendix III Letter of Introduction from Kabarak University

KABARAK



UNIVERSITY

Private Bag - 20157
KABARAK, KENYA
<http://kabarak.uo.ke/institute-postgraduate-studies/>

Tel: 0773 265 999
E-mail: directorpostgraduate@kabarak.uo.ke

BOARD OF POSTGRADUATE STUDIES

17th June, 2019

The Director General
National Commission for Science, Technology & Innovation (NACOSTI)
P.O. Box 30623 00100
NAIROBI

Dear Sir/Madam,

RE: ISAAC MASIBAYI OLESOPIA- REG. NO. GBM/M/0339/09/09

The above named is a Doctor of Philosophy student at Kabarak University in the School of Business. He is carrying out research entitled "*Human Resource Strategy Evaluation and Control, Information Characteristics and Performance in Higher Education, a Survey of Universities in Kenya*". He has defended his proposal and has been authorized to proceed with field research.

The information obtained in the course of this research will be used for academic purposes only and will be treated with utmost confidentiality.

Please provide him with a research permit to enable him to undertake his research.

Thank you.

Yours faithfully,

Dr. Betty Jeruto Tikoko
DIRECTOR, POSTGRADUATE STUDIES



Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)





**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

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2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/19/89692/31456**

Date: **5th July, 2019.**

Isaac Masibayi Sopia
Kabarak University
Private Bag - 20157
KABARAK.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Human resource strategy evaluation and control, information characteristics, and performance in higher education institutions: A survey of universities in Kenya.”* I am pleased to inform you that you have been authorized to undertake research in **all Counties** for the period ending **5th July, 2020.**

You are advised to report to **the County Commissioners, and the County Directors of Education, all Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


BONFACE WANYAMA.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioners
All Counties.

The County Directors of Education
All Counties.

Appendix V NACOSTI Research Permit


THIS IS TO CERTIFY THAT:
MR. ISAAC MASIBAYI SOPIA
 of KABARAK UNIVERSITY, 0-20100
 Nakuru, has been permitted to conduct
 research in All Counties

on the topic: **HUMAN RESOURCE
 STRATEGY EVALUATION AND CONTROL,
 INFORMATION CHARACTERISTICS, AND
 PERFORMANCE IN HIGHER EDUCATION
 INSTITUTIONS: A SURVEY OF
 UNIVERSITIES IN KENYA**

for the period ending:
 5th July, 2020

Isaac Masibayi Sopia
 Applicant's
 Signature

Permit No : NACOSTI/P/19/89692/31456
 Date Of Issue : 5th July, 2019
 Fee Received :Ksh 2000



Sammy M. M. M. M. M.
 Director General
 National Commission for Science,
 Technology & Innovation


THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.


CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The Licensee does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and Innovation
 P.O. Box 30623 - 00100, Nairobi, Kenya
 TEL: 020 400 7000, 0713 788787, 0735 404245
 Email: dg@nacosti.go.ke, registry@nacosti.go.ke
 Website: www.nacosti.go.ke



REPUBLIC OF KENYA



National Commission for Science,
 Technology and Innovation

RESEARCH LICENSE

Serial No.A 25752

CONDITIONS: see back page



Appendix V Questionnaire

PART I PRELIMINARY INFORMATION

This part seeks to elicit information about your professional life and work. Do please, write and tick in the spaces provide. Kindly respond to all questions. The researcher will use this information for the academic research purpose only and will disclose neither your identity nor that of your institution.

- 1. Name of organisation (Optional).....
- 2. Official title.....
- 3. Gender: Female Male
- 4. Age
- 5. Highest academic degree: PhD Masters Bachelors
- 6. Number of years since earning highest degree: Less than 10 More than 10
- 7. Number of years in present position: Less than 10 More than 10
- 8. Years of experience prior to current position: Less than 10 More than 10

PART II INFORMATION ON THE STUDY VARIABLES

This part seeks to elicit information about Human Resource Strategy Evaluation and Human Resource Strategy Control, Information Characteristics, Top Management Support and Performance. Do, please indicate, by ticking in the space provided adjacent to each statement, your level of agreement with the statements listed. Kindly respond to all statements. There are not right or wrong answers. The researcher will use this information for the academic research purpose only and will disclose neither your identity nor that of your institution. Use of “HR” herein indicates the functional department, not individual employees or officers.

(Key: 5 = Strongly Agree; 4= Agree; 3 = Uncertain; 2 = Disagree; 1 = Strongly Disagree)

Human Resource Strategy Evaluation

- 9. Components of Human resource plans are well-known to executives and Heads of department (Cy) 5 4 3 2 1
- 10. Staff know their requests must not conflict with overall objectives and values (Cy) 5 4 3 2 1
- 11. Inter-managerial conflicts about Human resource issues are discerned and easily resolved (Cy) 5 4 3 2 1
- 12. Heads of department make requests aligned with institutional overall objectives and values (Cy) 5 4 3 2 1
- 13. Change in strengths and weaknesses are well known and documented (Ce) 5 4 3 2 1
- 14. External Human resource opportunities and threats are well known and documented (Ce) 5 4 3 2 1
- 15. Focus is more on collaboration than on competition (Ce) 5 4 3 2 1
- 16. Human resource pays more attention to its own operations than on issues from other departments. (Ce) 5 4 3 2 1
- 17. HR demonstrates adequate knowledge of internal and external change factors (Ce) 5 4 3 2 1
- 18. Evaluations show Human resource plans emphasise cost minimisation in the institutional (A) 5 4 3 2 1
- 19. Evaluations show Human resource plans emphasise value creation and innovation (A) 5 4 3 2 1
- 20. Human resource possesses adequate managerial and operational competence and talent (F) 5 4 3 2 1

- | | | | | | |
|--|---|---|---|---|---|
| 21. A cost-effective, approved, and implemented budget backs Human resource plans (F) | 5 | 4 | 3 | 2 | 1 |
| 22. Human resource plans contain mechanisms to identify and plan for Human resource -related risks (F) | 5 | 4 | 3 | 2 | 1 |
| 23. Human resource understands the need to defend institution's position locally and globally (F) | 5 | 4 | 3 | 2 | 1 |
| 24. Management and staff are not averse to being questioned about their work (F) | 5 | 4 | 3 | 2 | 1 |

Human Resource Strategy Control

- | | | | | | |
|--|---|---|---|---|---|
| 25. HR plans indicate adequate understanding of internal strengths and weaknesses (PC) | 5 | 4 | 3 | 2 | 1 |
| 26. HR plans indicate adequate knowledge of external opportunities and threats (PC) | 5 | 4 | 3 | 2 | 1 |
| 27. We know when and why HR opportunities and threats are changing (PC) | 5 | 4 | 3 | 2 | 1 |
| 28. Changes in competitors' HR initiatives affect our own HR plans (PC) | 5 | 4 | 3 | 2 | 1 |
| 29. We know when and why HR initiatives of competitors have changed (PC) | 5 | 4 | 3 | 2 | 1 |
| 30. Reports show HR monitors environmental change at all levels (SC) | 5 | 4 | 3 | 2 | 1 |
| 31. HR staff regularly attend conferences on emerging HR practices (SC) | 5 | 4 | 3 | 2 | 1 |
| 32. HR subscribes to professional literature (SC) | 5 | 4 | 3 | 2 | 1 |
| 33. Statements of intended and actual HR action plans are well-documented (ICrI/ST) | 5 | 4 | 3 | 2 | 1 |
| 34. Employees know what is required for HR to update their personal record (ICrI?) | 5 | 4 | 3 | 2 | 1 |
| 35. Periodic reports exist indicating major HR-related achievements (ICrI/MR) | 5 | 4 | 3 | 2 | 1 |
| 36. Current HR plan contains initiatives to detect unexpected HR events (SAC) | 5 | 4 | 3 | 2 | 1 |
| 37. HR plans contain scenarios on possible adverse, unforeseen HR events (SAC) | 5 | 4 | 3 | 2 | 1 |
| 38. HR plans include mechanisms to deal with unexpected, adverse events (SAC) | 5 | 4 | 3 | 2 | 1 |

Information Characteristics

- | | | | | | |
|---|---|---|---|---|---|
| 39. The human resource information system is linked to other information systems (IC/S) | 5 | 4 | 3 | 2 | 1 |
| 40. Management information infrastructure is robust and cost effective (IC/S) | 5 | 4 | 3 | 2 | 1 |
| 41. Presentation of qualitative and quantitative information is balanced (IC/S) | 5 | 4 | 3 | 2 | 1 |
| 42. Mechanisms for timely information retrieval are specified (IC/T) | 5 | 4 | 3 | 2 | 1 |
| 43. At any given time, information sought is related to the decision made (IC/T) | 5 | 4 | 3 | 2 | 1 |
| 44. Deadlines for major informational activities are specified and met (IC/T) | 5 | 4 | 3 | 2 | 1 |
| 45. Mechanisms for timely information storage, access, and retrieval are specified (IC/T) | 5 | 4 | 3 | 2 | 1 |
| 46. External and long-term HR information is given prominence (IC/S) | 5 | 4 | 3 | 2 | 1 |
| 47. Detailed information does not distract attention (IC/O) | 5 | 4 | 3 | 2 | 1 |
| 48. The Information flow is frequent and coherent (IC/O) | 5 | 4 | 3 | 2 | 1 |

49. HR has access to information on goals, current situation, and problems (IC/S)	5	4	3	2	1
50. Mechanisms for feedback and feedforward are clear and documented (IC/O)	5	4	3	2	1
Top Management Support					
51. Executives provide sufficient HR financial & personnel resources (TMS/R)	5	4	3	2	1
52. There is satisfactory investment in HR information systems (TMS/R)	5	4	3	2	1
53. The participation of executives in HR planning is well-documented (TMS/C)	5	4	3	2	1
54. Executives are at the forefront of introduction of new HR initiatives (TMS/I)	5	4	3	2	1
55. Executives' role in championing HR initiatives is well-known (TMS/I)	5	4	3	2	1
56. The HR function is represented at high level strategy forums (TMS/C)	5	4	3	2	1
57. Executives' mentorship of HR specialists is well-established (TMS/C)	5	4	3	2	1
58. Senior management openly emphasises the importance of HR initiatives (TMS/CM)	5	4	3	2	1
59. Senior management encourages information gathering and dissemination (TMS/CM)	5	4	3	2	1
60. Appraisals indicate satisfactory employee empowerment (TMS/I)	5	4	3	2	1
61. HR head specialist consults with the senior management regularly (TMS/I)	5	4	3	2	1
62. HR does not need to have to always defend its role (TMS/C)	5	4	3	2	1
Performance of Human Resource Strategy					
63. ICT has reduced the need for more HR staff (P/Ecy)	5	4	3	2	1
64. ICT use allows HR specialists to focus more on strategic than operational issues (P/I)	5	4	3	2	1
65. The is on course for achieving paperless HR (P/Ecy)	5	4	3	2	1
66. Assessments indicate HoDs have significant responsibility for HR matters (P/Es)	5	4	3	2	1
67. Continuous HR performance reviews have replaced periodic appraisals (P/Es)	5	4	3	2	1
68. Executives and HoDs recognize the change leadership role of HR (P/I)	5	4	3	2	1
69. HR's role of setting up and review of performance assessment is recognised (P/Es)	5	4	3	2	1
70. Evaluations show executives' and employees' satisfaction with HR services (P/Es)	5	4	3	2	1
71. Available measures show cost-consciousness is high among HR staff (P/Ecy)	5	4	3	2	1
72. There are indications HR is conversant with key student outcomes (P/I)	5	4	3	2	1
73. HR is cognizant of need for linkages with industry, government, society, institutions (P/I)	5	4	3	2	1
74. Reviews indicate stakeholders are not critical of the institution on inclusivity issues (P/Es)	5	4	3	2	1
75. Assessments show stakeholders accept audit results/rankings (P/Es)	5	4	3	2	1
76. The human capital concept is embraced and used in monitoring and reporting (P/Es)	5	4	3	2	1

Key to questionnaire items:

Cy:	indicator of human resource strategy evaluation dimension of Consistency
Ce:	indicator of human resource strategy evaluation dimension of Consonance
F:	indicator of human resource strategy evaluation dimension of Advantage
A:	indicator of human resource strategy evaluation dimension of Feasibility
PC:	indicator of human resource strategy control of Premise Control
SC:	indicator of human resource strategy control of Surveillance Control
ICrl:	indicator of human resource strategy control of Implementation Control
SAC:	indicator of human resource strategy control of Special Alerts Control
IC/S:	indicator for Information Characteristics at the Strategic level
IC/T:	indicator for Information Characteristics at the Tactical level
IC/O:	indicator for Information Characteristics at the operational level
TMS/C:	indicator for top management support by Commitment
TMS/R:	indicator for top management support by resource allocation
TMS/I:	indicator for top management support by involvement
TMS/CM:	indicator for top management support by communication
P/Ecy:	indicator for Performance Efficiency
P/Es:	indicator for performance Effectiveness
P/I:	indicator for Performance Impact

Appendix VI Study Population

(LIST OF ACCREDITED UNIVERSITY)

NO	UNIVERSITY	YEAR OF ESTABLISHMENT	YEAR OF AWARD OF CHARTER
PUBLIC CHARTERED UNIVERSITIES			
01.	University of Nairobi	1970	2013
02.	Moi University	1984	2013
03.	Kenyatta University	1985	2013
04.	Egerton University	1987	2013
05.	JKUAT *	1994	2013
06.	Maseno University	2001	2013
07.	Chuka University	2007	2013
08.	Dedan Kimathi University of	2007	2012
09.	Kisii University	2007	2013
10.	MMUST **	2007	2013
11.	Pwani University	2007	2013
12.	Technical University of Kenya	2007	2013
13.	Technical University of Mombasa	2007	2013
14.	Maasai Mara University	2008	2013
15.	Meru University of Science & Technology	2008	2013
16.	Multimedia University of Kenya	2008	2013
17.	South Eastern Kenya University	2008	2013
18.	Jaramogi Oginga Odinga University	2009	2013
19.	Laikipia University	2009	2013
20.	University of Kabianga	2009	2013
21.	Karatina University	2010	2013
22.	University of Eldoret	2010	2013
23.	Kibabii University	2011	2015
24.	Kirinyaga University	2011	2016
25.	Machakos University	2011	2016
26.	Murang'a University of Technology	2011	2016
27.	Rongo University	2011	2016
28.	Taita Taveta University	2011	2016
29.	The Co-operative University of Kenya	2011	2016
30.	University of Embu	2011	2016
31.	Garissa University	2011	2017
PUBLIC CONSTITUENT COLLEGES			
01.	Alupe University College	2015	
02..	Kaimosi Friends University College	2015	
03.	Tom Mboya University College	2016	
04.	Turkana University College	2017	
05.	Bomet University College	2017	
06.	Tharaka University College	2017	
PRIVATE CHARTERED UNIVERSITIES			
01.	University of Eastern Africa, Baraton	1989	1991
02.	Catholic University of Eastern Africa	1989	1992
03.	Daystar University	1989	1994
04..	Scott Christian University	1989	1997
05.	United States International University	1989	1999
06.	Africa Nazarene University	1993	2002
07.	Kenya Methodist University	1997	2006
08.	St. Paul's University	1989	2007
09.	Pan Africa Christian University	1989	2008
10.	Kabarak University	2002	2008
11.	Strathmore University	2002	2008

NO	UNIVERSITY	YEAR OF ESTABLISHMENT	YEAR OF AWARD OF
12.	Africa International University	1989	2011
13.	Kenya Highlands Evangelical	1989	2011
14.	Mount Kenya University	2008	2011
15.	Great Lakes University of Kisumu	2005	2012
16.	Adventist University	2005	2013
17.	KCA University	2007	2013
18.	KAG –EASTU niversity	1989	2016
PRIVATE CONSTITUENT COLLEGES			
01.	Tangaza University College	1997	
02.	Marist International University College	2002	
03.	Regina Pacis University College	2010	
04.	Uzima University College	2012	
05.	Hekima University College	1993	
INSTITUTIONS WITH LETTERS OF INTERIM AUTHORITY			
01.	Aga Khan University	2002	
02.	KWUST ****	2002	
03.	GRETSA University	2006	
04.	Presbyterian University of East Africa	2007	
05.	The East African University	2010	
06.	Management University of Africa	2011	
077	Pioneer International University	2012	
08.	Riara University	2012	
09.	UMMA University	2013	
10.	International Leadership University	2014	
11.	Zetech University	2014	
12.	Lukenya University	2015	
13.	RAF International University	2016	
14.	AMREF International University	2017	

Appendix VII Survey Sample

Public Chartered (14/31)

1. Jomo Kenyatta University of Agriculture & Technology
2. Moi University
3. South Eastern Kenya University
4. Maasai Mara University
5. Rongo University
6. Meru University of Science & Technology
7. Taita Taveta University
8. Pwani University
9. Garissa University
10. Kibabii University
11. The Co-operative University of Kenya
12. University of Embu
13. University of Nairobi
14. Technical University of Mombasa

Public Constituent Colleges (4/6)

15. Tom Mboya University College
16. Turkana University College
17. Tharaka University College
18. Kaimosi Friends University College

Private Chartered (8/18)

19. Africa International University
20. Catholic University of Eastern Africa
21. Great Lakes University of Kisumu
22. Scott Christian University
23. KCA University
24. Africa Nazarene University
25. Kenya Highlands Evangelical University
26. United States International University

Private Constituent (2/5)

27. Marist International University College
28. Uzima University College

University with Letter of Interim Authority (6/14)

29. Kiriri Women University of Science & Technology
30. Zetech University
31. AMREF International University
32. Management University of Africa
33. RAF International University
34. Presbyterian University of East Africa

Total 34



THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Moderation of Top Management Support on the Relationship between Human Resource Strategy Evaluation and Performance: A Survey of Universities in Kenya

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Abstract:

Purpose: the purpose of the study was to ascertain the moderating role of top management support on the relationship between the utilization of human resource strategy evaluation and the performance of the human resource strategy in universities in Kenya. The study hypothesized that there was no significant moderating role of human resource strategy evaluation and performance of the human resource strategy in universities in Kenya.

Methodology: the study employed a cross-sectional sample survey in the Republic of Kenya. Data was collected from a randomly sampled size of thirty-one universities from a population of 74 universities accredited by the Commission for University Education. A self-administered questionnaire was mailed for completion by the registrar in charge of administration with oversight over the human resource management function that is in charge of the human resource strategy. Data was coded and processed by SPSS version 25. Descriptive and inferential statistics were used to analyse the data.

Findings: the study found moderate to high utilization of human resource strategy. The direct relationship of utilization of human resource strategy evaluation and performance of human resource strategy was strong and significant. However, the influencing role of top management support was found to be non-significant.

Unique contribution to theory, practice, and policy: the study identified the supportive behaviours of top management as applied to universities in Kenya. It also emphasized the weak structural position of human resource management within the management hierarchy of universities. Human resource management needs to be strengthened structurally and professionally given that people constitute the most important resource within universities.

Keywords: Top management support, human resource strategy evaluation, performance, higher education

1. Introduction

This paper reports a study that sought to investigate the moderating role of top management support on the relationship between utilization of human resource strategy evaluation and the performance of the human resource strategy in universities in Kenya. Over the past two decades, universities have utilized strategy through strategic planning. Macdonald (2019) quoting Elizabeth Buckner notes strategic planning in universities a huge global trend. Fredua-Kwarteng (2020) observes majority of African tertiary education institutions have strategic plans. The environment, in complexity and dynamism, has compelled institutions to adopt market-like mechanisms so as to survive and thrive. Citing Keller (1983), Shattock (2010), Bayenet et al. (2000), and Groves et al. (1997), Parakhina, Godina, Boris, and Ushvitsky (2017) outline some of the pressures on universities: turbulence in context; high velocity evolution of international competition; changed demand requirements to university education; fading lines of distinction of the education market; inadequate qualified scientific and instructional human resources; and demands for innovations.

Higher education institutions have found themselves in a competitive marketplace; the main variables being attraction of exceptionally respected scholars, top-rate students, sponsors, as well as raising their profile and reputation (Goldman and Salem, 2015). Notably, public universities have transformed from being 'state-controlled to state-supervised' (Fredua-Kwarteng, 2020). And the university institution is now considered an 'organization like any other' (Macdonald, 2019, quoting Elizabeth Bruckner). Thus, the identity of the university, 'half-public, half-private', has become problematic (Tavernier, 2005); and the varied stakeholder demands have added on to this identity crisis. Thus, according to proponents, strategic planning, a rigorously critical brainstorming process university administrations deploy to direct their activities (Ofori&Atiogbe, 2012), help institutions confront hostile environments; and in particular to efficiently allocate resources for attainment of key milestones (Ofori&Atiogbe, 2012, citing Bain and Company, 2003). Goldman and Salem (2015) suggest strategic planning portend success for complex entities among them universities and colleges.



Human Resource Strategy Evaluation And Performance in Higher Education: An Empirical Study on Selected Universities in Kenya

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Abstract

The research aimed to examine the relationship between human resource strategy evaluation and the performance of human resources in universities in Kenya. A sample survey cross-sectional design was employed where the target population was the registrars from the administration department that has oversight over the human resources. The data was then processed using the SPSS version 25 and analysed with descriptive and inferential statistics. Frequency distributions indicated high utilisation of the principles of business strategy evaluation in human resources. The correlation between the Human resource Strategy Evaluation and performance was positive and significant, and regression analysis confirmed the predictive power of human resource strategy on performance. The study concluded a positive and significant relationship between the utilisation of human resource strategy evaluation and the performance of human resources in universities in Kenya.

Keywords: Human Resource Strategy Evaluation; Performance; Higher Education, Kenya

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DOI: <https://doi.org/10.37227/JIBM-2021-05-832>

Introduction

The notion that human resources are the most significant asset in organisations (Bhusan & Sar, 2020; Shrouf et al., 2020; Chakraborty & Biswas, 2019) is uncontested. This owes to 'the totality of knowledge, skills, attitudes, personality traits, talents, relationships, networks' that are person-based (Simonis, 2021) and pervade systems. This argument is in line with the resource-based view (RBV) of the firm that privileges internal resources and capabilities in the competitiveness of entities (Barney, Corte, Sciarelli, & Arian, 2012). The reasoning is even more pertinent for universities as labour-intensive institutions (Jyot & Mohsin, 2020). In contention, though, are the approaches to harnessing slack in these resources.

Important as people are, they have to get organised. Human resource strategy is one such organising paradigm and is presently the choicest. Strategic human Resource Management contains strategy (Sepahvand & Khodashahri, 2021), which is a 'central philosophy of the way that people in the organization are managed and the translation of this