

**EFFECT OF HUMAN RESOURCE CAPABILITIES ON SUSTAINABLE
ORGANIZATIONAL COMPETITIVENESS OF MOBILE PHONE SERVICE
PROVIDERS IN KENYA: A MODERATING ROLE OF WORK
ARRANGEMENTS**

BY

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DECLARATION

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This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

This thesis is dedicated to my beloved sons Barnabas Kiprutoh who was born in the year I started my PhD programme and Timothy Kiprop who has shown a lot of academic prowess at an early age.

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ABSTRACT

In a rapidly changing and competitive environment, Human Resource Management practitioners are striving to deal with the emerging challenges. The emergent non-standard and non-routine work arrangements contribute to attraction and retention of talents for sustainable organizational competitiveness. Several past studies focused on human resource capabilities, work arrangements and sustainable organizational competitiveness but did not address the issues studied in this research particularly the effect of human resource capabilities on sustainable organizational competitiveness: moderating role of work arrangements. The study was grounded on Resource Based View, Social Exchange and Performance theories. Explanatory research design guided by pragmatism philosophical paradigm was adopted. Multistage sampling design which included stratified random sampling, proportionate sampling and random sampling were used to get the actual respondents studied. Targeted population was 1279 drawn from 3 mobile phone service provider firms in Kenya. Self-administered questionnaires were used to collect data from 258 respondent's determined using Taro Yamane sample size formula. Data was Analyzed using descriptive and inferential statistics which included; Factor analysis, correlation analysis, and multiple hierarchical regression analysis. The findings were analyzed at $p < 0.05$ which showed a positive relationship between human resource competencies and sustainable organizational competitiveness ($\beta = 0.135$, $p < 0.05$). Human capital processes and sustainable organizational competitiveness also showed a positive relationship ($\beta = 0.105$, $p < 0.05$) and between human resource management practices and sustainable organizational competitiveness ($\beta = 0.749$, $p < 0.05$). The moderator variable had a positive significant relationship ($\beta = 0.095$, $p < 0.05$) on sustainable organizational competitiveness. Subsequently, when independent variables were moderated with work arrangements the findings indicated that human resource competencies had a positive significant effect on sustainable organizational competitiveness ($\beta = 0.234$, $P < 0.05$) with human resource management practices having negative significant effect on sustainable organizational competitiveness ($\beta = -0.214$, $P < 0.05$). However, human capital processes had a positive insignificant effect on sustainable organizational competitiveness ($\beta = 0.026$, $P > 0.05$). Similarly, overall test of significance with F-test values confirmed a high significant effect of work arrangements on the relationship between human resource capabilities and sustainable organizational competitiveness $F \{(7, 250) = 329.576, P < 0.05\}$. The findings of the study confirmed the significant effect of Human Resource capabilities on sustainable organizational competitiveness and it was therefore concluded that there is a moderating role of work arrangements on the relationship between human resource capabilities and sustainable organizational competitiveness. The findings support the use of Resource Based View, Performance and Social Exchange theories. The study recommends that mobile phone service provider firms should promote interest of employees whenever undertaking human resource management so as to win their support as this has effect on their competitiveness. Further research to be done on other aspects of human resource capabilities, moderating role of work arrangements on human capital processes and sustainable organizational competitiveness as it exhibited insignificant results.

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ABBREVIATIONS

CAK	Communication Authority of Kenya
CCK	Communication Commission of Kenya
HR	Human Resource
HRC¹	Human Resource Capabilities
HCP	Human Capital Processes
HRC	Human Resource Competencies
HRMP	Human Resource Management Practices
HRM	Human resource management
KIM	Kenya Institute of Management
KM	Knowledge management
RBV	Resource-Based View
SOC	Sustainable organizational competitiveness
ZHRC	Zscore Human resource competencies,
ZHCP	Zscore Human Capital Processes
ZHRMP	Zscore Human Resource Management Practices,
ZWA	Zscore Work arrangement,
ZHRCWA	Zscore Human Resource Competencies * Zscore work arrangement,
ZHCPWA	Zscore Human Capital processes * Zscore work arrangement,
ZHRMPWA	Zscore Human Resource management practices*Zscore work arrangement.

DEFINITION OF TERMS

Abilities: An individual's capability to perform effectively in one or more areas of activity, such as physical, mental or interpersonal work.

Childcare: In this study it is used to refer to having to do with the care of children, specifically of preschool children whose parents are employed, provided by the employer while the parents are working.

Condensed week: In this study it refers to Workers working full time hours in less than the traditional 5-day workweek by increasing daily hours worked.

Flexitime: In this study it means Schedules based on worker needs within set parameters approved by a supervisor.

Human capital processes: In this study it is used to mean undertakings like learning (training), Teamwork (cooperation) and innovation used to enhance knowledge, skills and abilities.

Human resource competencies: In this study it means a cluster of knowledge, skills and abilities related to performance of significant aspect of a practice or profession.

Human Resource Management Practices: In this study it is used to mean human resource management activities that include performance appraisal, reward management, performance management and staff involvement.

Knowledge: In the study it is the sum of what is known and resides in the intelligence and the competence of people.

Learning: This is an important psychological process that-determines human behaviour. It is a relatively permanent change in behaviour that occurs as a result of experience or reinforced practice.

Reward management: In the study it was used to refer to the basis for rewarding employees by mobile phone service provider organizations and how employees perceive it.

Skills: In the study, it is used to refer to the ability to undertake an activity practically.

Staff involvement: In the study it refers to participation of employees in deciding how their work is done regularly, suggesting improvements, goal setting, planning, and monitoring of their performance.

Staff loyalty: In this research, it was used to refer to the eagerness to stay touched with the organization and show commitment and believes that it is the best option to work for the organization, exhibiting the action of great impact.

Standard work: This refers to the hours of work for employees, which are either 8 hours a day or 40 hours a week. This is usually worked between 08:00 am and 17:00, Monday to Friday inclusive.

Sustainable organizational competitiveness: In this study it is used to refer to consistent competitive edge of an organization with regard to retention of expertise staff, staff loyalty, and job security.

Telework: Workers work remotely from their own homes, using a telecommunications connection to the workplace if necessary to enable a person to work from home while maintaining contact with colleagues, customers, or a central office.

Work arrangements: Work arrangements means how work has been structured and can either be standard work arrangement or non-standard work arrangement also referred to as flexible work options in this study.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter covers background to the study, statement of the problem, specific objectives, hypotheses, significance and scope of the study.

1.1 Background to the Study

The last two decades have witnessed many changes due to the influence of globalization, fewer trade barriers, and the rapid spread of the cyber revolution. All these changes and fluctuations have changed the world of work (Redman *et al.*, 2001). Human resource capabilities have become more globalized over the last decade and its importance as a driver of competitiveness in economies has increasingly grown. It involves the creation of new designs, concepts and ways of doing things, their commercial exploitation and subsequent diffusion through the rest of the organisation and society (Wickham, 2006). However, relatively young (generation Y) employees currently account for a big percentage of the workforce in many organizations. It is argued that generation Y will make up about 75% of the world's workforce by 2025 (Lau Adeline & PhuaLianKee, 2011).

Further, Past studies have shown that generation Y (born between 1978 and 1990; (Weingarten, 2009) places emphasis on sound HRM practices regarding compensation, training and development (Barkhuizen, 2014). A study by Du Plessis and Barkhuizen (2012), on the personal-level factors of Human Resource (HR) practitioners showed that individuals aged 45 years and older displayed higher levels of hope and confidence than their younger counterparts.

Final results of the study showed that HR practitioners employed at top management

level displayed higher levels of psychological capital (hope, confidence, optimism, and resilience) than those employed at lower levels in the organization (Du Plessis & Barkhuizen, 2012). Therefore, the greatest challenge that organizations have is to retain the said group of generation Y employees. The great expansion of information and communication technologies that has taken place during the last decade has set the stage for a new age of opportunities and challenges (CCK, 2012).

According to Frimpong and Fan (2010), service industry is “one of the major Contributors in the economies of the world”. The telecommunication sector aims at developing a change adept organization that anticipates, creates and responds effectively to change in the external and internal environments to increase profit potential (Wickham, 2006). Some of the forces of change that have greatly influenced the telecommunication industry in Kenya include intense competition, regulation, globalization and technological advancement.

There has been concern that the Kenyan telecom sector is lacking rapid growth due to lack of human resource development resulting from insufficient training and capacity building (Samuel, 2009). There is need to promote an environment that supports organizational capabilities and improves employee competitiveness, as human resources are critical to the telecom sector’s development. Human capacity building is necessary for the sector’s growth. This research was worthwhile in providing the communication sector with a study of the human resource capabilities that implicitly or explicitly influence their sustainable organizational competitiveness.

In response to these social changes, organizations and institutions are increasingly realizing the importance of human resource capabilities as essential to sustainable

organizational competitiveness, which has created a new paradigm shift as to the ways in which people should be managed, that has propelled the expansion of strategic Human Resource Management (Husynski, 2002). The essence of Strategic Human Resource Management (SHRM) is that people are regarded as competitive assets to be led, motivated, and deployed, in ways that contribute directly to the attainment of the firm's strategic objectives (Ann, 2013). The overall purpose of Strategic human resource management is to ensure that the organization is able to achieve its success through people (Armstrong, 2006) and therefore sustainable organisational competitiveness.

1.1.1 Concept of sustainable organisational competitiveness

Factors that lead to the competitiveness of an organisation are usually organisation internal leading indicators and hence difficult to observe, which precede the economic outcomes of companies' operations measured, for example financial ratios, profitability, market position, market growth, revenue base and consumer base as lagging indicators (Kaplan & Norton 1992, 1996). Given the serious difficulties in defining sustainable competitiveness, some authors have started to measure sustainable organisational competitiveness as that part of competitiveness that is determined or strongly influenced by the management of environmental and social issues.

According to Aouad *et al.* (2010) the competitiveness of firms inevitably depends on national and regional systems of innovation, which in turn depends on government policy. Therefore, given the constant changes and dynamism of the business environment, securing competitiveness is therefore high on the agenda of most organizations. In this respect, securing human resource competencies, human capital

process and practices improvement is an influential lever for sustainable competitiveness. One reason for using economic performance measures instead of indicators of competitiveness might be the difficulty of defining and measuring competitiveness in one dimension. According to Proenca (2012) employee turnover is expensive for a business organization at any level and thus staff retention is critical for organisations.

Clearly defining and using sustainability-based dependent variables contribute to the understanding of inimitability of the resources (Dierickx & Cool, 1989). This is because, theoretically, even resources that are easy to imitate can provide ‘temporal’ competitive advantages and favourable performance (Barney, 1991). The definition of ‘sustainability’ may vary based on industry or time. For example, one year of competitive advantage may be long in a high-tech industry, but not sufficient in the steel industry.

Accordingly, it is believed that the issue of sustainability needs to be more vigorously discussed both at the hypothesis building stage by considering industry or other contextual factors and at the stage of developing an empirical research design (McEvily & Chakravarthy, 2002; Priem & Butler, 2001). This means that entrepreneurial leadership and organizational values do initiate building capabilities and deploy resources, positioning the organization in to a sustainable competitive advantage leading further to gain competitiveness (Raduan *et al.*, 2009; Liu & Huang, 2009).

1.1.2 Concept of human resource capabilities

Capabilities are bundles of skills and knowledge (Day, 1994) can also be thought of as resources such as staff, machines, and processes available within an organization in support of the values of the organization. It follows that organizations with capabilities aimed at satisfying customer needs will gain competitiveness over those without such capabilities (Shee *et al.*, 2008). Possession of resources and capabilities are not sufficient conditions for sustainable organizational competitiveness (Morrow *et al.*, 2007). Firms must work towards availability of their resources, value creation and gain competitiveness. Value creation is effective when firms exceed competitors' ability to serve customers' needs (Sirmon *et al.*, 2007).

1.1.3 Concept of Human Resource Competencies

Human resource competencies are the total human knowledge, skill, and abilities that employees come with in the organization; they are valuable in enhancing sustainable organisational competitiveness (Ulrich *et al.*, 2010). Knowledge, skills and abilities are inherent factors possessed by every individual in an organization. Knowledge has long been recognized as a valuable resource by economists and has been a focus of significant attention in the human capital literature, in particular the issues of knowledge generation, leverage, transfer and integration (Wright *et al.*, 2005). Knowledge has been conceptualized and characterized in a number of ways in the literature (Maruping, 2002). A major point of commonality has been the distinction between tacit knowledge characterized by its incommunicability, and explicit knowledge, which is capable of being codified. In this study the focus is on knowledge, skills and abilities of employees.

Further, Ismail and Long (2009) defined competencies in a general term as a personnel related concepts referring to a set of behavioural dimensions of one's effective performance at work. Inyang (2009) considers competencies as constituting a cluster of related knowledge, attitudes and skills, which an individual acquires and uses together, to produce outstanding performance in any given area of responsibility. Lack of certain competencies may affect the Human Resource performance of strategic roles in the organization (Aitchison, 2007).

1.1.4 Concept of Human capital processes

According to Lee and Lee (2007) workforce planning, teamwork, training and development, and employees' innovativeness are important HRM dimensions that affect productivity, product quality and sustainable organisational competitiveness. However, Inyang (2010) indicates that Human capital processes are simply organization's activities, which are directed at attracting, developing and maintaining an effective workforce. The many transactional or administrative activities involved in managing the human resources of an organization such as training and development, staff motivation and quality performance are meant to be carried out effectively to influence the achievement of sustainable organizational competitiveness (Inyang, 2008).

The emphasis on human capital processes in organizations reflects the view that market value depends less on tangible resources, but rather on intangible ones, particularly human resources learning, teamwork and innovation (Odhong *et al.*, 2014).

1.1.5 Concept of Human Resource Management practices

Human Resource Management Practices (HRMP) are a set of practices used by organizations to manage human resources through facilitating the development of competencies that are organization specific, produce complex social relation and generate organization knowledge to sustain sustainable organisational competitiveness. They play three major roles namely building critical organizational capabilities, enhancing employee satisfaction and improving customer and shareholder satisfaction (Kaplan & Norton, 1992, 1993). Based on the framework, three clusters of human resource management practices measures namely; Employee involvement (participation) performance appraisal and reward management are suggested to help the Human resource management practices demonstrate and drive its business contribution in sustainable organisational competitiveness in this study.

1.1.6 Concept of Work Arrangements

Work arrangements involve policies laid down by an organization to regulate family or personal leave, flexible work options and dependent care (Estes & Michael, 2005). The work place practices that support favourable work arrangements include flexible work hours for instance flexitime, which permits workers to vary their start and finish times provided that a certain number of hours are completed, Working from home is another form of flexible working arrangement known as Telework, part time work childcare and also standard work.

Work arrangement and the flexibility accorded distinguishes one organization from the other hence the use of performance theory. It reveals the organization culture and how human resource is being managed. In particular, work arrangements provide the distinction between human resources in various organizations (Besa *et al.*, 2009).

Therefore, it was important to evaluate the moderating role that work arrangements have on the relationship between human resource capabilities and sustainable organizational competitiveness.

1.2 Statement of the problem

Understanding sources of competitiveness has become a major area of research in the field of strategic management (Debra & James, 2011). Changing business environment and knowledge economy has made adoption of Human Resource Management (HRM) imperative for sustainable organizational competitiveness. Human resource experts believe that employers which want to position themselves as 'employers of choice' in an economy with limited depleted resources and tight labour markets should consider using sustainable HR capabilities (App, Merk & Büttgen, 2012; Ehnert & Harry, 2012; Lis, 2012). According to Zaugg, (2009) and Darcy *et al.* (2012) in a study found out that fostering the competitiveness of the HRM system itself is a survival strategy for organizations. It is on this background that this research determined the effect of human resource capabilities on sustainable organizational competitiveness of mobile phone service providers in Kenya with the moderating role of work arrangements.

Further past studies by Bowen and Ostroff (2004), Collin and Smith (2006) and Richard and Johnson (2001) looked at the characteristics of human resources as HR competencies and processes in relation to sustainable organizational competitiveness and work arrangements on productivity hence sustainable organizational competitiveness with inconsistencies in their findings. Two most recent studies by Nielen and Schiersch (2014) reported inverse U-shape relationships between the use of temporary workers and organization competitiveness. They found out that the use

of temporary agency workers initially improved the firms' competitiveness, but that beyond a certain point the relationship was negative. This therefore necessitated the research using work arrangements as a moderator.

The above inconsistencies in study findings, the study undertook to determine the moderating role of work arrangements on the relationship between human resource capabilities on sustainable organizational competitiveness of mobile phone service provider firms in Kenya. Since there were limited study findings which have been undertaken in Kenya to establish the effects of HR capabilities on organizations' competitiveness in the mobile phone service provider industry, there was therefore need for this research which addressed the identified research gap.

The study therefore, established the effect of human resource capabilities on sustainable organizational competitiveness of mobile phone service providers in Kenya: a moderating role of work arrangements.

1.3 Objectives of the Study

The general objective of the study was to examine the moderating role of work arrangements on the relationship between human resource capabilities on sustainable organizational competitiveness of mobile phone service provider firms in Kenya.

1.3.1 Specific objectives

The specific objectives were to:

- i) Analyze the effect of Human Resource Competencies on Sustainable organizational competitiveness of mobile phone service providers in Kenya.
- ii) Evaluate the degree to which Human capital processes affect sustainable organizational competitiveness of mobile phone service providers in Kenya.

- iii) Asses the level to which Human Resource Management Practices affects sustainable organizational competitiveness of mobile phone service providers in Kenya.
- iv) Examine the moderating role of work arrangement on the relationship between Human Resource capabilities and sustainable organizational competitiveness of mobile phone service provider firms in Kenya.

1.4 Research Hypotheses

- H₀₁: There is no significant effect of human resource competencies on Sustainable organizational competitiveness of mobile phone service provider firms in Kenya.
- H₀₂: There is no significant effect of human capital processes on sustainable organizational competitiveness of mobile phone service provider firms in Kenya.
- H₀₃: There is no significant effect of human resource management practices on sustainable organizational competitiveness of mobile phone service provider firms in Kenya
- H_{04a}: Work arrangements do not moderate the relationship between human resource competencies and Sustainable organizational competitiveness of mobile phone service provider firms in Kenya.
- H_{04b}: Work arrangements do not moderate the relationship between human capital processes and sustainable organizational competitiveness of mobile phone service provider firms in Kenya.
- H_{04c}: Work arrangements do not moderate the relationship between human resource management practices and Sustainable organizational competitiveness of mobile phone service providers in Kenya.

H_{04d}: Work arrangements do not moderate the relationship between human resource capabilities and sustainable organizational competitiveness of mobile phone service providers in Kenya.

1.5 Significance of the Study

To the Human Resource managers, practitioners and professionals, the study established the moderation effect of work arrangements on Human Resource capabilities' influence on sustainable organizational competitiveness in mobile service provider organizations in Kenya. It therefore enables them to adopt appropriate strategies in human resource management which are in line with enhanced sustainable organizational competitiveness. Implementation of study recommendations would improve strategic human resources management in the organizations.

The policy makers would use the findings to formulate policies that would sustain sustainable organizational competitiveness to mitigate competition threats from other communication service providers in Kenya. In Addition, the findings would enhance employee welfare by guarding against tendencies of exploitation by their employers in attempts to survive in competitive business environment. The study findings have added to the body of knowledge as the results supported the use of Resource based view, social exchange and performance theories. Also would contribute to further academic research based on the recommendations of the study.

1.6 The Scope of the Study

The study collected data on the effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya with the moderating role of work arrangements. It covered Safaricom, Airtel, and Orange mobile phone service providers in Western Kenya Region. The mobile phone service

providers firms studied in western Kenya were taken as representative of the mobile phone service provider firms in other regions of Kenya. The study covered a sample of members of management and categories of employees in the organizations who had the desired information. The study confined itself to mobile phone service provider firms in western Kenya and generalized the results to the other regions in Kenya. Employees employed on permanent terms ranging from regional sales managers, area sales managers, other employees and subcontracted employees (paid through agencies). The views from the staff on the moderating role of work arrangements on Human Resource capabilities' influence on sustainable organizational competitiveness were established from the respondents.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter explored relevant literature which addressed the problem investigated. The literature review was done to match the research with the existing materials. Related researches to the study were cited as relevant literature under various titles in the study. A conceptual framework indicated the effect of HR capabilities moderated by work arrangements on sustainable organizational competitiveness with the independent, moderating and dependent variables as shown on the conceptual framework figure.

2.1 Sustainable organizational competitiveness

The world of business is becoming more and more global, hence new demands and new challenges. Nowadays, organizations are forced to seek new means to withstand fierce competition and succeed in their operations. The following are among the most critical challenges faced by organizations: the need to increase productivity, enhance organizational capabilities, expand into global markets, develop and implement new technologies, respond to more demanding customer needs and changes in the highly volatile marketplace, increase revenue and decrease costs, attract and retain high-performing and committed workforce, introduce and manage relevant organizational change (Burke, 2005).

Past studies validated the link between HR capabilities and superior sustainable organisational competitiveness in United States and Europe (Boselie *et al.*, 2001, Hoque, 1999; from Asia, Bjorkmand & Xiucheng, 2002; and from Africa Chebregiorgis & Karsten, 2007). Further empirical studies of several researchers

indicated a strong and positive association between HR processes and competitiveness of organizations (Cappeli, 1998; Katou & Budhwar, 2006; Kuo, 2004; Huselid *et al.*, 1997; Youndt *et al.*, 1996). Sustainable organisational competitiveness is achieved when a firm is implementing a value creating strategy not simultaneously being implemented by any competitor and when these other firms are imperfectly able to imitate the benefits of this strategy (Barney, 2010). The more favourable approach to sustainable organisational competitiveness is the use of intangible (or tacit) resources that are generally built rather than bought (Derrick & Cool, 2012).

For any organization to achieve its desired goals there is need for good management of physical or tangible resources as well as intangible aspects such as HR capabilities. HRM practices include HRM functions like staffing, performance appraisal, rewards and employee involvement (Bear, 2005). Organizations should have the tendency of attracting and retaining the most skilled labour as compared to their competitors through an effective HR strategy (Guan & Ma, 2003). Through this, global challenges will be dealt with and the organization will grow. In response to the above demands, businesses have persistently been searching for new means to improve their sustainable organisational competitiveness, while researchers have been putting effort in an attempt to determine such possible sources of sustainable organizational competitiveness at both conceptual and empirical levels.

Accordingly, Lankoski (2000) applied this idea to environmental aspects and points out that economic performance is a multi-causal issue, and therefore any causal effect on overall economic performance or overall competitiveness by a single explanatory factor such as environmental performance is likely to be small. Operationalisation of sustainable organisational competitiveness as a sub-segment of overall business

competitiveness can be based on the self-assessment of companies. (Sharma, 2001) successfully used this approach with US and Canadian companies to measure organizational capabilities with sustainable organisational competitiveness benefits. Wagner *et al.* (2003) argued that to assess the influence of strategy choice on the link between organisational performances on sustainable organisational competitiveness requires definition of a set of items to approximate a theoretical concept of organisational competitiveness.

Further, Wagner (2003) argued that such items can include different drivers that are hypothesized to increase competitiveness, as well as outcomes that are perceived to be results of high competitiveness. An index composed of such items therefore defines a measure of sustainable organisational competitiveness, which is a contribution of a company's organisational management to its overall competitiveness (Baumast & Dyllick, 2001; Wagner & Schaltegger, 2002). Employee (staff) loyalty is an organizational citizenship behaviour that reflects the allegiance to the organization, to the promotion of its interests and image to the outsiders. (Bentten Court, *et al.*, 2001). Therefore, loyalty qualifies as a measure of sustainable organizational competitiveness.

According to Pfeffer (1994), strategic management practitioners have over the years focused on economic aspects and industrial organization such as natural resources, access to financial resources, technology, protected or regulated markets and economies of scale in formulating approaches for firm's competitiveness. However, this approach has been under criticism in the recent past as being insufficient as it overlooks the vital intangible influence of human resources in sustainable organizational competitiveness. This situation has led to focus on human resource-

based approaches in developing strategies for sustainable organizational competitiveness (Bakhsh & Inam, 2009).

Emerging from above arguments the use of staff loyalty, staff job security and staff retention as measures of sustainable organizational competitiveness in this study is appropriate. Further Purcell (2004) argued that, sustainable organisational competitiveness means the possession of a strategy and its non-duplicability as well. To act as a source of sustainable organisational competitiveness, a resource has to possess the following attributes; be valuable, rare, inimitable, and non-substitutable (Purcell, 2004).

The elementary feature of the Resource Based View is that successful firms possess internal resources and capabilities that are valuable, rare, and inimitable and lack substitutes (Hatch & Dyer, 2004). Resource Based View research largely treats value creation as exogenous and focuses on incremental opportunities to sustain competitive advantage and defensive measures to impede the deterioration of sustainable organisational competitiveness.

According to Wright, McMahan, McWilliams (1994), human resources can be considered rare, as individuals usually create value for the organization with high cognitive ability, which is distributed throughout the total labour population and is rare by definition. Furthermore, historical differences among organizations, causal ambiguity of the linkage between human resource capabilities and competitiveness, and social complexity of human interactions make human resources inimitable. In summary, Resource Based View highlights the critical role of human resources in establishing and sustaining competitive advantage. However, there is an ongoing debate as to what in particular provides value to the organization, human resources, or

their management. Thus, the study established the moderating role of work arrangements on the relationship between human resource capabilities and sustainable organizational competitiveness in mobile phone service provider firms in Kenya.

2.2 Human Resource Capabilities

According to Snell and Dean (1992), human resource capabilities are a vital source of sustainable organizational competitiveness. The capabilities consist of individual's knowledge, skills, and abilities, which sums up to form the human resource competencies. On the other hand, human capital processes, which consist of learning, innovation and teamwork, are organizational activities directed at managing the human resources competencies and the capital employed toward the fulfilment of organizational goals (Hatch & Dyer, 2004).

Firms have the possibility of generating human resource advantage through recruiting and retaining outstanding people; through "capturing" a stock of exceptional human talent, latent with powerful forms of "tacit" knowledge. Human capital process advantage, on the other hand, may be understood as a function of historically evolved, socially complex, causally ambiguous processes, such as team-based learning and cross-functional cooperation, which are very difficult to imitate. Concisely, human resource advantage can be traced to better people in organizations with better processes (Boxall & Purcell, 2003). Further Lam and White (1998) established that effective recruitment, competitive compensation, and efficient training and development have relationship with sustainable organisational competitiveness of performance that is staff loyalty, employee retention, staff job security and product quality. Green *et al.* (2006) concluded that, integrated approach to Human Resource

capabilities exhibited satisfied and committed employees who demonstrated remarkable individual and team competitiveness.

Further Sermon *et al.* (2007) concluded that if an organization intends to enhance its value it can do so by augmenting its customer service level, producing quality products or delivering quality services, upgrading processes, examination of their human resource competencies and practices. According to O'Donnell *et al.* (2003) people are evaluated through their competencies, adaptability, network connections and experiences. Among these components, knowledge has become most accentuated (Drucker, 1999) and the basic economic resource is no longer capital, natural resources or labour, but knowledge. What really distinguishes work results from each other is the share of embedded knowledge (O'Donnell *et al.*, 2003) in their study of the Irish ICT sector found out that approximately two thirds of organizational value is perceived to be composed of intellectual capital and that over half of this capital stems directly from people working, thinking and communicating. This belief has been put forward and empirically verified by various authors. To illustrate, Scarborough (2003) found out that the innovation process could be facilitated if Human Resource competencies are linked within organizations.

Furthermore, Scholl *et al.* (2004) asserted that the most effective approach to the theoretical and empirical issues of competencies management would be an interdisciplinary and a multi-disciplinary one. According to their research, the most pressing and challenging practical problem for the understanding and advancement of competencies is to give priority to human factors. In a similar fashion, Oltra (2005) criticized academics for not taking rigorous and systematic steps toward comprehensive theory building in linking human resource capabilities and HRM. The

study was thus undertaken to establish the moderating role of work arrangements on the relationship between human resource capabilities and sustainable organizational competitiveness of mobile phone service provider firms in Kenya.

2.2.1 Human Resource Competencies

According to Khandekar *et al.* (2005) organizations survive on employee's knowledge and understanding to compete effectively in the market. If this is realized then organizations can gain sustainable competitiveness.

The adoption of change in an organization depends on the knowledge possessed by its employees. Uninformed group of employees are rigid to embrace new technology that is beneficial for organizations' competitiveness (Marlon, 2009). This transitional period for change is often short when employees are fast to understand and accept new developments. It is required for gaining sustainable organisational competitiveness in an environment where there is stiff competition. Competencies are found in the knowledge, skills and abilities of organizational members. Resource Based theory recognizes the importance of individual members of an organization as vital resources (Jayne, 2006).

It also argued that employees must have competencies that are knowledge, skills and abilities to exhibit behaviours that are compliant to the strategy implementations of any organization. The abilities of the available human resource determine the success of every organization. Furthermore, Vivien (2006) asserted that, for organizations to ensure competitiveness in the volatile market, there is need for an effective human resource to be in place to counter the tight competition prevailing. Organizations require competent human skills to ensure competitiveness is achieved.

Further Barro and Lee (2010) estimated that increasing average years of schooling by one year increases per capita GDP by 1.7% to 12.1% depending on specification. Their overall studies found that education has a significant and positively correlated with organisation growth and argue that causation runs from education and growth in line with human resource competency growth models. Furthermore, existing employees will be motivated to attain additional education for an increase in compensation. The organization saves resources by retaining existing employees in addition to developing stronger skill sets that will increase productivity and hence competitiveness.

According to the resource-based view, in order for a resource to qualify as a source of sustainable organisational competitiveness, the resource must add value to the firm, it must be rare, it must be inimitable, and there must be no adequate substitutes for the resource (Wernerfelt, 1984). However, both the demand and supply for labour is heterogeneous since firms have different jobs which require different skills and the supply of labour is heterogeneous because individuals differ in types and level of skills (Wills, 1998; Barney & Hesterly, 2006). There is therefore, variance in individuals' contribution to value of the firm. The human capital therefore creates value for the firm.

A resource must be rare if it is to be a source of sustainable organizational competitiveness. One could easily argue that human resources are not rare, due to the fact that where unemployment exists, there is obviously an excess of workers. Related to the issue of the homogeneity of labour supply discussed above, to the extent that all current and potential employees have the same skill levels and human capital resources could not be considered rare (Analoui & Karami, 2003). However, to the

extent that jobs require skills which allow for variance in individual contributions for example when job-relevant skills are no longer a commodity and these skills should be normally distributed in the population (Analoui & Karami, 2003; Barney & Hesterly, 2006). Under these conditions, high quality human resources are rare.

In order for a resource to be a source of a sustainable organisational competitiveness, the resource must be inimitable. If the competitive advantage gained from having high quality human resources is easily imitated, then it is not possible for human resources to constitute a source of sustainable organisational competitiveness (Analoui & Karami, 2003). First, competitors must be able to identify exactly the source of sustainable organisational competitiveness that is the exact component of the human resource competencies which are providing the advantage (Analoui & Karami, 2003; Peteraf & Barney, 2003). Second, the competitor must be able to duplicate both the relevant components of the Human Resource Competencies and the circumstances under which these resources function (Analoui & Karami, 2003).

Finally, a resource must not have substitutes if it is to be a source of a sustainable organisational competitiveness. This raises the question of whether or not other firm resources, such as technology, have the potential for offsetting any sustainable organisational competitiveness attributable to human resources (Analoui & Karami, 2003). To the extent that other resources are able to substitute for advantages associated with the human resource competency of the focal firm, then human resources do not have the potential to act as source of sustainable organisational competitiveness. In order to address this issue, it is important to note that human resources are one of the few organization resources which have the potential not

become obsolete, and be transferable across a variety of technologies, products, and markets.

HR professionals are performing a new and more challenging responsibility that requires new competencies and skills. He has to think outside the traditional organizational box of HRM and develop a radically different approach to manage the human resources and create a fit between HR architecture and business strategy formulation and implementation in the firm. The HR architecture, according to Becker and Huselid (2006) is composed of the systems, practices, competencies, and employee performance behaviours that reflect the development and management of the organization's strategic Human Resource Competencies. Further to this, Shimizu *et al.* (2006) found that service organizations that internationalize without strong Human Resource Competencies are likely to be at a competitive disadvantage.

However, Grant (2001) argued that human resources provide services to the organization in the form of skills, abilities, knowledge and decision making capability. These human resources are responsible for building core competencies for the organization by utilizing both knowledge and skills that they accumulate over time. A firm can for instance use intangible resources like skills, knowledge and abilities to develop rare processes that will be difficult for competitors to imitate. Thus the importance envisioned in this study in relation to sustainable organizational competitiveness.

2.2.2 Human Capital Processes

The responsibility of any organization towards its workers can be demonstrated in its programs of training and education, innovation and team building. These programs

foster further development of competences and respond to the desire of the employees to have a job that enhances their professional and personal development.

A study conducted by Arshad *et al.* (2014) on human capital processes and sustainable organisational competitiveness found a positive significant result. Also study by Islam and Siengthai (2010) in Bangladesh industries in DEPZ area with 216 respondents, the result of the study revealed that human capital processes significantly related to sustainable organisational competitiveness.

According to Sutia *et al.* (2013) there is an effect of Human Capital process Investment, Leadership and Strategic Orientation on Airport Performance of 25 Airports. The sampling technique employed was census. The results of the study showed that human capital processes investment and strategic orientation increased organisational competitiveness.

Further Tessema and Soeters (2006) investigated influence of HR processes in Eritrea and found out that efficient implementation of human capital processes enhanced sustainable organisational competitiveness at individual and organization level. In a study of managers from Taiwan and Cambodia, Sang (2005) concluded that workforce teamwork, training, and innovation had a positive and significant influence on non-financial and financial dimensions of sustainable organizational competitiveness. The study validated the positive effects on operational dimensions of competitiveness, namely production flexibility, product cost, product quality, and product delivery.

Human capital processes in the mobile telecommunication sector can therefore be considered as the successful development and/or implementation of new ideas,

products, process or practices, in order to increase organizational efficiency and competitiveness (Ling, 2003; Sexton & Barrett, 2005; Panuwatwanich *et al.*, 2008). Similarly, human capital processes are an essential element in the organisation used to develop the competencies of its personnel to attain organisational competitiveness (Jauhar *et al.*, 2015)

Further Ljungquist (2013) carried out a study on the core competence concept on links, levels, time and context, knowledge and process management. The study proposed a core competent management model designed to handle complex innovation processes in fast-paced market dynamism. In particular, the study focused on the core competence concept from different perspectives; innovation outcome types and modes of development, agile, and time dimension of shared history and shared future aims, task force team's degree of homogeneity and degree of formal structural setting (Ljungquist, 2013). The study further argued that existing core competencies are ideally explored by homogenous teams managed at the Business Unit level in structured context which infers competitive imitation protection.

Furthermore, past studies reflect an impressive influence of Human capital processes on sustainable organizational competitiveness (Ljungquist, 2013). The study further argued that existing core competencies are ideally explored by homogenous teams managed at the Business Unit level in structured context which infers competitive imitation protection. Researchers have divergent views about effect of Human capital processes on sustainable organizational competitiveness. They argue that Human capital processes and competitiveness research have common attributes as well as contradictions (Boselie *et al.*, 2005; Katou & Budhwar, 2006).

According to Ravi *et al.* (2013) a Study on Human Capital processes and Employee competitiveness, an Analysis of IT Services Industry, examined whether Human Capital processes investment directed towards employee training is effective in improving sustainable organisational competitiveness. The panel data set was used to link formal training with competitiveness at the individual employee level.

Using a dynamic panel model, the study identified a significant positive impact of training on sustainable organisational competitiveness. A unit increase in training is linked to a 2.14 per cent increase in competitiveness. The study also found that general training that an employee can utilize outside the focal organisation improves sustainable organisational competitiveness (Ravi *et al.*, 2013).

However Wright *et al.* (2005) explored the effect of Human capital processes on sustainable organizational competitiveness in 45 business units in America and Canada and established a causal association between Human capital processes and business sustainable organisational competitiveness. In Western countries, several past studies have examined this relationship. Stavrou and Brewster (2005), in a study of 3702 firms from European Member countries discovered a positive association between strategic Human Capital processes and sustainable organizational competitiveness. Since most of these studies were not done in Kenya, this research therefore examined the moderating role work arrangement on the relationship between human capital processes and sustainable organizational competitiveness in mobile phone service providers firms in Kenya.

According to Harel and Tzafirir (1996), human capital processes improve employees' knowledge, skills and abilities through effective selection and training. Past studies by

Becker & Huselid (1998), established that human capital processes, aimed at acquisition and development of employees are essential investments which develop valuable and rare human assets. Learning and or training programmes, innovations, and teamwork or cooperation can be attributed to sustainable organizational competitiveness (Jayne, 2006). Learning forms the integral part for organizational success. It is a process aimed at improving the performance of individuals or groups within an organization. It involves organising training workshops and seminars where employees are provided with necessary skills and new technologies. Learning process helps in equipping people with knowledge to enable them tackle challenges with ease and improves service delivery to clients (John, 2005). Human resources as an important asset should be ready to embrace new skills through learning, talents development and career development.

These will contribute to fast achievement of organizational goals. Before a company ventures into recruiting new employees, it is essential to ensure that the best prospective candidates having been identified from the existing employees. This can only be realized through improving the learning culture of the organization. According to Angele (2012), gaining sustainable organisational competitiveness can be made possible through building a strong learning culture in an organization. Learning is an aspect that adds value to the talent management spectrum. Development of integrated learning programmes assist in appraising employees' skills and knowledge. This enables business companies to align workers' goals with their level of experience.

According to Huang *et al.* (2015), formerly stable environments are becoming uncertain as a result of accelerating technological advancement, globalization,

industry convergence, aggressive competitive behaviour and deregulation of businesses. Since organizations need to possess rare, inimitable and heterogeneous resources in order to develop a source of sustainable organisational competitiveness, then a challenge exists for organizations operating in an industry where resources are mobile and homogeneous across organizations. While it is important for organizations to have valuable, rare, difficult to imitate and non-mobile resources to develop initial sources of sustainable organizational competitiveness, for these competitiveness to be sustained, the organization must develop core competencies that will keep on regenerating rare, non-imitable and non-mobile processes that are difficult for competitors to imitate.

In a study conducted by Danneels (2008) focusing on the role of organizational antecedents of second order competencies in building new customer and technological competencies respectively, it was found that second order competencies are related to exploration which entails learning activities that lead to addition of new resources. The study identified five organizational characteristics that facilitate exploratory learning. These are; i) The willingness to cannibalize, ii) The presence of constructive conflict in the organization, iii) A climate of tolerance for failure iv) The extent to which the firm engages in environmental scanning and v) The firm's slack resources. In a study by Ljungquist, (2013) it was argued that existing core competencies are ideally explored by homogenous teams managed at the Business Unit level in structured context which infers competitiveness imitation protection.

Emerging from the conceptualization of this study, is the fact that, even though the process of competence building requires an aspect of learning, how the input of the learning organization concept is integrated is not clearly pointed out despite the fact

that proponents of this learning concept have suggested that it holds huge potential for sustainable organizational competitiveness (Pedler *et al.*, 1991; Garvin, 1993).

Teamwork enhances responsibility as well as production of the organization (Russell & Jeffrey, 2009). Market demands and targets are attained when an organization exhibits this working strategy. Success in every organization is achieved through careful planning and execution of activities. Consequently, a strategic plan should be put in place for the organization. The tool prepared through active involvement and participation of all stakeholders act as a road map for the organization. Employees who demonstrate teamwork in their place of work play a vital role to develop an effective strategic plan. It is essential that human resource meet the quality and innovation to ensure customer gains trust in the organization (Marlon, 2009).

Participative approach toward employee increases levels of quality, productivity, mutual investment, and efficiency (Whitley, 1999; Hartcourt & Wood, 2007). Wilson and Peel (1990) found a positive relationship between worker participation and reduced absenteeism and turnover. Reduced turnover decreased hiring and training cost of firms (Kessler & Purcell, 1992). The results of present studies concur with results of earlier studies that Human Resource processes of employee teamwork are positively and significantly associated with sustainable organizational competitiveness (Amable, 2003; Hall & Soskice, 2001; Hart court & Wood, 2007; Rizov & Croucher, 2008).

Employee participation is characterized by wide ranging HRM related activities primarily focused on employee management. These processes include employees sharing schemes, cooperatives, industrial democracy, unions, HRM and high

commitment work practices, team working, collective bargaining, employee empowerment, employee partnership in providing input in strategic decision making, and employees' right of information sharing at all levels (Summers & Hyman, 2005).

Furthermore, Rizov and Croucher (2008) empirically examined the relationship of HR processes and organizational performance in European firms. They found out that collaborative form of HR processes characterized by valuing employees as assets and core partners, creating and communicating a culture of partnership between employer and employees as well as among employees affected sustainable organizational competitiveness.

Consequently, communicating organization's mission, values, goals and strategy statement through explicit open communication policy and strong support for employees consultative bodies like unions and committees reflected positive and statistically significant association with firms' performance (Rizov and Croucher 2008). The training and development of internal employees helps in reducing the cost and risk of recruiting and internalizing people from the external labour markets, thereby increasing the productivity and minimizing turnover (Akpotu et al., 2013).

Teamwork has become a fact of organizational life. Indeed, in our present economy, jobs have become increasingly interdependent, meaning that employees more and more depend on other employees for their efforts, information, and resources (Wageman & Baker, 1997). A recent Meta-analysis emphasizes the importance of teamwork processes for the performance of employees in teams (LePine, Piccolo, Jackson, Mathieu & Saul, 2008).

According to Slaughter (1998) innovation is the actual use of a non-trivial change and improvement in a process, product or system that is novel to the institution hence, developing the change. Stewart and Fenn (2006) described innovation as the profitable exploitation of ideas, which have an important role to play in seeking sustainable organizational competitiveness.

Several past studies have shown that technological innovation could bring positive impacts, enhancing the competitiveness of organizations. Innovation capability is a special asset of an organization. It is tacit and non-modifiable, and it is correlated closely with interior experiences and experimental acquirement (Guan & Ma, 2003). Further Sunil & Henny (2004) argued that innovation capabilities can be defined as: the capacity of (1) developing new products satisfying market needs; (2) applying appropriate process technologies to produce these new products.

However, Sunil & Henny (2004) asserted that Organizations not only have to attend to shareholders' interests (maximise economic returns from operation) but they also have to consider the well-being of the stakeholders (reduce the harm to employees, their families and society). Thus, for HRM to reduce the harm, it is crucial to manage the harm imposed by HRM activities. This harm covers three aspects: psychological, social and health aspects (Mariappanadar, 2012, 2013).

In addition to reducing harm imposed on employees, employee growth is equally important for HRM. Although it takes time for organizations to see the full effect of learning and development, both are crucial to sustainability as they create a win-win situation for employers and employees (Mariappanadar, 2013). Further Gann and Salter (2010) opined that clients could act as catalyst in the telecommunication value

chain to help foster innovation by exerting pressure on supply chain partners to improve overall performance, and also by helping them to devise strategies to cope with unforeseen changes.

This is particularly important, as Vennstrom and Eriksson (2010) asserted that client perceived barriers to change could be divided into three types. Attitudinal, industrial and institutional; noting that clients wishing to act as change agents need to be aware that their use of internal versus external project management affects their chances to influence the other mobile service actors and implement change and innovation.

A study by Aouad *et al.* (2010), further noted that the understanding of innovation and how it occurs in the sector is far from complete but can be enriched further by detailed work that brings together different theoretical perspectives on innovation that will enable the development of context sensitive ways of recognizing and measuring innovation at different levels of resolution. This will accord the organization the much needed sustainable competitiveness. This study therefore established the relationship between human capital processes and sustainable organizational competitiveness with the moderating role of work arrangements.

2.2.3 Human Resource Management Practices

It is worth noting that, there is need to develop the exact human resource measures that address the unique needs of each organization (Ulrich & lake, 1990).

Like many organizations that attempt to align human resource management practices with business strategy, strategic HR framework involves three components (Ulrich & Lake, 1990). Business strategy represents the business strategy of the organization. In essence, it defines how the company wins in the marketplace based on customer

buying criteria, competition, government regulations and supplier situation. Secondly, organizational capabilities are required in order to implement the business strategy. There is need to develop the critical organizational capabilities. Reddington *et al.* (2005) argued that organizations often target two or three organizational capabilities that are critical but with which they have not totally succeeded. These capabilities might include competitive shared mind-set, speed to market and innovation.

However, there is a broad consensus that there is a positive relationship between HRM practices and organizational performance hence competitiveness (Wattanasupachoke, 2009; Tessema & Soeters, 2006; Wright *et al.*, 2005; Singh, 2003). However, of great importance, human resource management practices should be designed and delivered to build organizational capabilities and business strategy. Leaders and employees need to be competent, motivated, and empowered to contribute to the fullest extent in the development of these capabilities (Reddington *et al.*, 2005).

More recently, Van Jaarsveld and Liu (2015) found in a study of call-centre workers in China that when workers experienced low involvement practices in the workplace the turnover in the workplace was high. The provision of work-life practices has the potential to generate improved attitudinal and behavioural outcomes among employees. While this process is widely held to occur through social exchange, research has not yet explicitly tested this dimension (Van Jaarsveld and Liu 2015). It has also not studied the possibility that work arrangements in Kenyan context due to varying statutory regulations moderated the link between human resource capabilities and sustainable organizational competitiveness.

In summary, the strategic human resource framework aims to leverage and align human resource management practices to build critical organizational capabilities that enable companies to win in the marketplace. It is about the design, implementation and maintenance of reward systems (interrelated reward processes, practices and procedures) which aim to satisfy the needs of both the organization and its stakeholders and to operate fairly, equitably and consistently (Armstrong, 2010). Strong evidence exists in literature about different HRM practices and their effects on superior organizations' competitiveness. Researchers found a positive relationship between effective human resource management practices and top-class sustainable organisational competitiveness (Harel & Tzafrir, 1996); compensation and reward (Batt, 2002); performance appraisal (Boselie *et al.*, 2001, Bjorkmand & Xiucheng, 2002); Employee involvement (Kuo, 2004).

By integrating the strategic HR framework with the business framework, the interrelationships among components can be identified in two linkage chains. In the first chain, human resource management practices can be conceptualized as key drivers in building organizational capabilities, enhancing employee satisfaction, and more innovatively, shaping customer satisfaction (Ulrich, 1997; Ulrich & Lake, 1990). In turn, both organizational capabilities and employee satisfaction can impact customer satisfaction which eventually results in sustainable organizational competitiveness. In the second chain, organizational capabilities become key drivers, which implement business strategy, impact customer satisfaction, and, eventually, contribute to shareholder satisfaction (Ulrich, 1997).

In addition, both business strategy and customer satisfaction, if properly managed, should increase shareholder satisfaction thus sustainable organisational

competitiveness. The integrative model tightly aligns the human resource planning process with the business planning process. The model provides a simple but comprehensive roadmap for a company to think through its strategic focus. Second, the model helps senior line and human resource executives rethink the strategic roles within corporations, which can be played by HR management practices. As human resources clearly have become an important source of sustainable organizational competitiveness (Pfeffer, 1994; Huselid, 1995), the model explicitly identifies the high value-added contribution of HR management practices within the organisation.

In summary, common human resource management practices may include annual performance appraisal (formal feedback on job performance from superiors/employers, involve formal feedback from customers/clients), reviewing vacancies in relation to business strategy (Ashton & Sung, 2002). Formal recruitment assessment tools, Employees' annual performance reviews, reward management, training needs assessment and multi-skills training for performing multiple jobs constitute desirable human resource management practices (Meyer & Herscovitch, 2001). Performance appraisal is a vital means to offer promotion, recognition, and career development (Larsson *et al.*, 2007).

According to Danlami, Sulu & Salami (2012), organizations could adopt information which they have got from the appraisal of employees to change the selection and training practices, also behaviours and attitudes of the employees which are desired by the organization can be developed. On the contrary, the usefulness of skilled employees will not be put to optimal use if not encouraged to do their jobs. Furthermore, continuous skills development programmes, 'structured' induction training, 'work-(re)design' for improved competitiveness, workforce diversity for

organisational competitiveness, mentoring, quality assurance and the Business Excellence Model or equivalent forms anticipated human resource management practices in the quest for sustainable organizational competitiveness (Sung & Ashton 2005).

Further Sung & Ashton (2005) argued that human resource management practices such as sophisticated recruitment processes, performance appraisals, work redesign and mentoring, reward management and staff involvement are specifically targeted to create a greater depth of human capital investment and hence skill formation within the organization. The higher levels of skill in turn are linked to improvements in the quality of work and the services delivered to the customer (Sung & Ashton, 2005). The evidence is that these will in turn lead to higher organizational performance for example higher levels of productivity and product quality.

According to Purcell *et al.* (2003) organizations in different sectors use different combination of human resource management practices to achieve competitiveness. For example, business services use human resource management practices to achieve innovation and generate new ideas therefore improving product quality. Organizations in financial services industry use a combination of high involvement and reward and commitment practices for competitiveness. Irefin (2014) examined the effect of employee commitment on organizational performance in Coca Cola Company in Nigeria. The focus of the study was on the influence of employee involvement on sustainable organizational competitiveness with reference to employee turnover. Using both descriptive and explanatory research methodologies, a five point numerically Likert-type questionnaire was designed and administered among selected staff of Coca Cola. The study hypothesis was tested with Pearson Correlation

Coefficient. The outcome of the analysis showed that the level of employee involvement was very high. It also revealed a very high positive relationship between employee involvements and sustainable organizational competitiveness (employee turnover).

Further a study by Riordan, Vandenberg, and Richardson (2005) found that an environment of employee involvement within an organization was positively related to higher levels of sustainable organizational competitiveness. Employee involvement management practices have shown a number of positive relationships with work issues, including improved productivity and job satisfaction, morale, motivation, health and safety and eventual sustainable organizational competitiveness (Mackie, Holahan, and Gottlieb, 2004). However, Dalal *et al.*, (2012) concluded that employee involvement predicted organisational competitiveness while Salanova, Agut and Peiro (2005) had earlier found an association between employee involvement and sustainable organisational competitiveness.

In providing quality leadership, organizations in manufacturing industries utilise human resource performance appraisal and reward & commitment practices just like companies in wholesale and retail sector (Barkhuizen *et al.*, 2014). It was further argued that those in business services rely exclusively on reward and commitment practices to provide quality leadership and those in financial services rely on a combination of high involvement and reward and commitment practices. In order to achieve a given business outcome, businesses use different human resource management practices depending on the industrial sector and the product market they are competing in (Mtila *et al.*, 2013; Sung & Ashton, 2005). The human resource management practices, reward management and commitment practices are used to

deliver the same outcomes across most sectors and this is the case with regard to staff involvement in the service sector.

Past available research findings have also emphasised the effect of poor HR management practices on both individual-level and organizational-level outcomes in the South African context. Findings showed that poor human resource management practices have a negative effect on psychological contracts, organizational commitment, work engagement, motivation, job satisfaction, happiness, meaningfulness, well-being and the retention of employees in various settings (Barkhuizen *et al.*, 2014; Magolego *et al.*, 2013; Mtila *et al.*, 2013). In contrast, as in this study, Imran *et al.* (2014) supported Mafini and Pooe (2013) who found a strong relationship between employee involvement and organisational competitiveness.

Poor HR management practices can have a significant effect on employee performance (Magolego *et al.*, 2013) and subsequently, on the quality of service delivery hence sustainable organisational competitiveness (Barkhuizen *et al.*, 2014). The achievement of other outcomes such as providing quality leadership and managing change are usually associated with the use of human resource management practices (Sung & Ashton, 2005). It is evident that human resource management practices would appear to be used in different ways, in different sectors, in order to achieve the business objective of sustainable organisational competitiveness.

Consequently, past studies have shown links between industrial sector and product market, the organization's product strategy and the adoption of different human resource management practices (Zheng *et al.*, 2006). They further argued that these have enabled firms to be successful high performance work organizations (HPWO) with sustainable organizational competitiveness. Tsai (2006), through a study in

Taiwan found a positive relationship of employees' empowerment and organizations' competitiveness. In a study of HRM practices in Chinese small and medium enterprises, participatory decision-making, performance-based pay, free market selection and performance appraisal, employees' commitment emerged as the most essential outcomes for improving performance and enhancing sustainable organizational competitiveness (Zheng *et al.*, 2006). In order to have proper involvement of employees it is imperative that their goals are aligned with the goals of the organization (Hussain & Saleem, 2014)

Further Noah (2008) found in his research that employee involvement in decision-making helps in creating a sense of belongingness among employees, which helps in creating a good congenial working environment and contributes towards building a good employer-employee relationship. Employee involvement concept reflects the argument that if organizations take care of their employees, employees are expected to reciprocate (Noah 2008).

Promotion of employees is the assignment of a higher rank job to an employee and this leads to higher sustainable organizational competitiveness through commitment of such an employee (Muhammad *et al.*, 2012). The reason why many people look forward to promotion is basically because it brings about more pay, added responsibilities and at times job satisfaction. But from the view of the employers, it can be a way of rewarding exceptional performance, and also could be a way of filling vacant positions in the company with employees who are loyal and well tested (Dessler, 2008).

Further Beh and Loo (2013) discussed the human resource management best practices and organization competitiveness from a universalistic approach and

provided a unified list of HRM practices needed for HRM best practices. They argued that the multiple HRM practices have synergistic effect, which contributes to organization's performance. Nonetheless, they were in agreement with previous research (Meyer & Herscovitch 2001; Sung & Ashton 2005) that there is no consensus or consistent evidence illustrating what constitutes the HRM practices that are associated with sustainable organizational competitiveness.

However, Beh and Loo (2013) in a study of the Malaysian insurance industry which focused on investigation of individual HRM practices relationship to organization performance, found out that there is a strong and positive correlation between performance appraisal practices and organizational performance. They also found out that internal communication practices, career planning, training, and development followed the performance appraisal in that order. As such, Beh and Loo (2013) concluded that performance appraisal has greatest effect on insurance performance compared with the rest of HRM practices.

According to Akhtar *et al.* (2008) training, participation (staff involvement), performance appraisal, and internal career opportunities were used as an approach to examine the validity of HRM practices and their effects on sustainable organizational competitiveness among 465 Chinese enterprises. The regression findings showed that four practices: training, participation, result oriented appraisal, and internal career opportunities were identified as the "core" of HRM practices that positively affect both product quality and financial performances (Akhtar *et al.*, 2008). The findings of Akhtar *et al.* (2008) were consistent with the results from a study done by Shipton *et al.* (2005).

On the other hand, Gooderham *et al.* (2006) conducted a similar study using a factor analysis of 80 different HRM practices on its relationship with sustainable organizational competitiveness among European firms. The study showed that training monitoring, share-options, evaluation of Human Resource Department, profit-sharing, group-bonus, and performance related pay had a statistically significant effect on sustainable organisational competitiveness. However, other previous studies used moderating variables to clear the doubt in the literature on relationship between HRM practices and sustainable organizational competitiveness, but still the moderation did not support some of the studies (Vanhala & Stavrou, 2013).

Similarly, a survey research conducted by Osman *et al.* (2011) using Performance appraisal and sustainable organisational competitiveness in Malaysia with 800 different industry sectors, the regression result showed significant positive relationship on competitiveness. However, there is a study that explained contrary to the aforementioned studies, were insignificant relationship revealed in the findings (Meier & O'Toole, 2013).

It is on the above background that this study used three (3) HRM practices (Performance appraisal, staff involvement and reward management) moderated by work arrangement to unlock the empirical impasse whether to confirm or proof otherwise the assertions that there is an effect of Human resource management practices on sustainable organizational competitiveness.

2.2.4 Human Resource Capabilities on Sustainable organizational competitiveness

When the supply of and demand for labour is heterogeneous, human resource characteristics are normally distributed. Firms have unique histories, work processes

characterized by causal ambiguity and social complexity. Human capital is transferable across technologies and human resources have potential to constitute a source of sustainable organizational competitiveness (Armstrong & Spellman, 1993). However, the way in which human resources provides a relative competitive advantage that leads to higher sustainable organisational competitiveness has been ignored. This research therefore established the effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya with moderating role of work arrangements.

According to Jyothi and Venkatesh (2006) competency-based pay and rewards improves quality of products and services, improves employees' behaviour, and reduces accident rates in the organization, thereby making strong contribution toward sustainable organizational competitiveness. Researchers have evaluated the relationship of compensation and reward, and sustainable organizational competitiveness. These studies concluded that an effective compensation and reward system increases sales, reduces staff turnover, and improve organizations' competitiveness (Batt, 2002; Dreher & Dougherty, 2005).

Arguably, employee participation is a significant strategy that many organizations use to improve the strengths and involvement of their employees assuming that involved employees are likely to be more efficient in their job duties (Saifullah, Alam, Zafar, and Humayon, 2015). Further Benrazavi and Silong (2013) argued that teamwork is an important factor that contributes to sustainable organisational competitiveness. Teamwork is a mutual activity that aims to achieve a common goal through involving organizational members in certain groups to share their knowledge and skills with each other.

It is argued that the mechanisms differ somewhat depending upon the nature of the environment. In static environments, firms with high levels of human capital resources should possess relative productivity advantages over competitors through the development of more efficient means of accomplishing task requirements. In addition, under more dynamic and complex environments, the Human Resource Competencies can affect firm effectiveness through increasing its capacity to adapt to particular environmental requirements. According to Quinn (1980), firm strategies develop through a process of an evolutionary series of decisions aimed at achieving vague objectives that move the organization incrementally in a desired direction towards competitiveness.

According to many human resource management experts recruiting people is an easy task, but it is very difficult to retain them (Hemalatha and Savarimuthu, 2013). Retention helps in cost cutting, increased productivity, better work quality and helps in winning the loyalty of employees. Bliss (2007) contends that organizations lose productivity, social capital and suffer customer defection every time a skilled employee quits. Therefore, retention of old employees is crucial for organizations survival, success and competitiveness.

However, Judeh (2011) explored the level of employee involvement and extent of teamwork effectiveness in the Jordanian glass and ceramic industry. He used descriptive statistics (t-test, linear regression and ANOVA) for analysis of questionnaire data collected from 176 respondents; it was established that there was a significant effect of employee involvement on team effectiveness. It was therefore, recommended that teamwork atmosphere ought to be enhanced in the organization. The overall outcome of the study showed that employee team commitment was very

vital in attaining success in an organization hence sustainable organisational effectiveness (Ngozi *et al.*, 2015). Meyerson and Dewettinck (2012) found that employee involvement had a significant positive effect on organisational competitiveness.

Moreover, Schuler and MacMillan (1984) presented a target/thrust matrix to discuss the potential for capitalizing on superior human resource management practices as a means of gaining and maintaining sustainable organizational competitiveness. Grandey and Cropanzano (1996) argued that in order for a resource to serve as a source of sustainable competitiveness, it must be Valuable, Rare, Inimitable, and Non-substitutable. Organisational managers must search for resources to help build their organisation's human capital and then use the Capital in ways that facilitate effective implementation of the strategy (Sirmon *et al.*, 2011). Li *et al.* (2011) strongly suggest that hedge funds are very different from mutual funds, and that a manager's talents and motivations should be important considerations in selecting hedge fund managers. If one were to focus on superior human resource processes as the source of sustainable competitiveness, then these processes must be evaluated against these four characteristics. Human resource practices can be valuable for example the value from HR programs as demonstrated in utility analysis models.

Further Grandey & Cropanzano, (1996) argued that HR practices have some potential for being a source of sustainable organisational competitiveness. However, it's argued that although HR practices may not themselves be a sources of organisational competitiveness, they play an important role in developing organisational competitiveness through the development of the human resource competencies, and that there seems to be a moderating effect between the relationships on organisational

competitiveness by affecting Human Resource behaviour (Grandey & Cropanzano, 1996). This moderating relationship can be attributed to work arrangements the organization has adopted.

2.3 Work Arrangements

It is the objective of every organization to optimize employee productivity and hence sustainable organisational competitiveness. Therefore, the balance between work activities and non-work activities has to be realized in order to succeed in attaining the optimality.

Accordingly Estes and Michael (2005) argued that competing demands between work and home have assumed increased relevance for employees in recent years. This is as a result of demographic and workplace changes such as rising numbers of women in the work force, longer working hours and more sophisticated communications technology enabling near constant contact with the workplace (Estes & Michael, 2005).

In response to these changes and the conflict they generate among the multiple roles that individuals occupy, organizations are increasingly getting pressure to implement work arrangements intended to facilitate employees' efforts to fulfil both their employment-related and their personal responsibilities (Chow & Keng-Howe, 2006). It has been found from research that those employees reporting high levels of discontent in work arrangements tend to exhibit lower levels of job satisfaction and organizational commitment (Burke & Green, 1999; Kossek & Ozeki, 1998).

Studies by Kleinknecht *et al.* (2014) established the relationship between the use of temporary and contract workers and the performance of the organization. They found

out that organizations that relied on firm specific knowledge as a basis for their innovation benefited less from the flexibility afforded from having temporary workers. These practices can influence sustainable organizational competitiveness, including enhanced social exchange processes, increased cost savings, improved productivity, and reduced staff turnover. Furthermore, on-site childcare, financial or informational assistance with childcare services constitutes the approval of favourable work arrangements (Bassani, 2008).

In a study of the 'virtual office', Callentine (1995) argued that participants attributed an increase in job satisfaction to increased flexibility in the location and scheduling of their work. People who work from home also reported higher levels of job satisfaction. In their 2007 meta-analysis, Gajendran and Harrison (2007) found that working from home was associated with increased job satisfaction and reduced intentions of turnover.

Similarly, Roehling and Moen (2001) found in a representative sample of 3,381 American workers that the presence of flexible time policies and childcare assistance was associated with employee loyalty for those with family responsibilities, hence sustainable organizational competitiveness. There is some empirical support for these arguments in that individuals who work in arrangements of their choice are more positively inclined to the organization, than individuals who do not (Holtom *et al.*, 2002; Tan & Tan, 2002).

However, Ang and Slaughter (2001) said there are no quantitative studies that have followed individuals over their careers to study movement in and out of formal standard organizational work arrangements. Also, there is some empirical evidence

that the type of job that a person does affects their attachment to the organization. Individuals who have more autonomous jobs are more attached to the organization, even when they are in a temporary position (Ang & Slaughter 2001; Hundley, 2001). Additionally, Chambel and Castanheira (2012), argued that there is a social exchange process that underlies workers' attachment to organizations. They found in a sample of Portuguese blue-collar workers from a temporary help agency that when organizations provided training to these workers they reciprocated by reporting high affective commitment to the organization.

Work-family research has shown that trying to manage demands from multiple roles such as work and family leads to reduced resources and increased strain in the form of work-to-family conflict (Grandey & Cropanzano, 1996). Work-family specific social support goes a step further than general support, in that it not only buffers stress from job demands, but also helps to conserve resources in both the work and family domains (Allen, 2001) by providing support specifically directed at balancing demands from both spheres (Hammer *et al*, 2009; Thomas & Ganster, 1995).

Individuals with greater access to workplace social support garner additional job psychological resources (Bakker & Demerouti, 2007) that provide a stress buffer to manage strain. When individuals feel that they are socially supported at work, cared for by social others and have access to help they derive satisfaction from their jobs (Cohen & Wills, 1985; Hobfoll, 2001). As individuals perceive more social support, their emotional and psychological supplies for coping with daily stressors increase and perceptual appraisals of stressors decrease (Jex, 1998). When individuals have more social support in general and content specifically for managing work-family issues, these positive dynamics may spill over into the family role thereby reducing

work to family conflict (Frone *et al.*, 1992). In general, favorable work arrangements practice relies on their ability to enhance recruitment and retention. It makes intuitive sense that offer favourable work arrangement practices which would attract individuals to an organization.

Two recent studies by Nielen and Schiersch (2014) reported inverse U-shape relationships between the use of temporary workers and organization productivity. They found out that the use of temporary agency workers initially improved the firms' competitiveness, but that beyond a certain point the relationship was negative. Similarly, Hirsch & Mueller (2012) found support for their argument that use of temporary workers improved firm productivity because of the facility it provide organizations to screen employees before hiring them, and due to the numerical flexibility it affords them. Beyond a certain point however, the use of temporary workers results in the organization losing organization-specific human capital and along with the associated spill-over effects leads to a loss of productivity hence sustainable competitiveness.

One reason why nonstandard workers, especially those who are in the organization for a limited period, might affect the firms' performance negatively is that they do not have relationships that facilitate the transfer of knowledge within the organization (Hirsch & Mueller, 2012). For instance, employees by working alongside each other they would be aware of different wages, different levels of job security and different benefits. Researchers such as George (2003) and Davis-Blake *et al.* (2003) examined whether the proportions of nonstandard workers in a department or workgroup affected the attitudes of standard workers towards the organization and towards their

co-workers. These researchers found that the greater the proportion of nonstandard workers, the more negative the standard workers' attitudes become.

They argued that the reason for this was that the presence of nonstandard workers indicated the management's decreasing intention of investing in its workforce and consequently standard workers started worrying about the security and value of their own jobs. In a study by George *et al.* (2012) found that, standard workers who believe that nonstandard workers cannot move up the organizational hierarchy (and thus threaten their jobs) perceive their nonstandard colleagues to be helping hands rather than competitors. Under these conditions, standard workers respond positively to working with nonstandard workers. Chattopadhyay and George (2001) also found that the lower the proportion of nonstandard workers in the workgroup was, the more positive were the attitudes of the temporary workers in the workgroup.

This they suggested was because temporary workers view the opportunity to work with standard workers positively, while if they had more non-standard colleagues they would view their work team as peripheral to the organization. The use of these arrangements would result in improved employee attitudes and behaviours within the organization, and thus enhanced sustainable organizational competitiveness, however not independently as shown by the results of past studies, which are contradicting hence the use as a moderator in this study.

2.4 Theoretical Framework

Theoretical framework is the structure that can hold or support a theory of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists. Theories are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend

existing knowledge within the limits of critical bounding assumptions. Several theories have been put forward to explain sustainable organizational competitiveness by researchers on organizations. Some of the theories include the Resource-Based View, Quality Circle, Quality of Work Life, Total Quality Management, HR re-engineering, Kaizen and HR Six Sigma. Most notable is the Resource-Based View (RBV). The study used three theories as its underpinning and includes Resource Based View, social Exchange theory and the performance theory.

2.4.1 Resource Based View Theory

The resource-based view (Barney, 1991) has become one of the most influential and well-cited theories in the history of management. It aspires to explain the internal sources of a firm's sustainable competitiveness. Its central proposition is that if a firm is to achieve a state of sustainable competitiveness, it must acquire and control valuable, rare, inimitable and non- substitutable (VRIN) resources and capabilities. The elementary feature of the Resource Based View is that successful firms possess internal resources and capabilities that are valuable, rare, and inimitable and lack substitutes (Hatch & Dyer, 2004). Organization therefore, must put in place processes and practices that can absorb the competitive human resource and enable them to apply their competencies (Barney 2002). This proposition is shared by several related analyses; core competences, dynamic capabilities and the knowledge-based view of firm (Nick and Jac, 2002).

Researches on Resource Based View theory, largely treats value creation as exogenous and focuses on incremental opportunities to sustain competitive advantage and defensive measures to impede the deterioration of competitive advantage. According to Wright *et al.* (1994), human resources can be considered

rare, as individuals usually create value for the organization with high cognitive ability, which is distributed throughout the total labour population and is rare by definition. Furthermore, historical differences among organizations, ambiguity of the linkage between human resource capabilities and competitiveness and social complexity of human interactions make human resources inimitable.

In summary, Resource Based View highlights the critical role of human resources in establishing and sustainable competitiveness. Value creation begins by delivering value to customers. Lepak *et al.* (2007) categorised this at three levels: individual, organization and society. The former two are termed as micro level and fall under the scope of this thesis. When a firm's customer services and other related issues such as measures of values exceed those offered by competitors then value creation occurs (Sirmon *et al.*, 2007). Mizik and Jacobson (2003) ascertained that value creation alone is not sufficient, and that value appropriation in the form of restricting the competitive forces helps in gaining competitiveness. The superiority of doing something better in the market place gains competitiveness. This understanding of value creation and its linkage to competitiveness is quite central to managers' responsibilities and their leadership. Sustaining an organization's value is as important as creating value for competitiveness.

Resource-based view research has been criticized to give little elaboration of how firms build new capabilities (Cavusgil *et al.*, 2007). In addition, the recent management concern has been that, value of a firm's resources should be assessed (Barney & Hesterly, 2006), as sustainable competitiveness of a firm has mostly been inferred from the presence of substantial resources and/or high performance rather than direct measurements (Peteraf & Barney, 2003). This study therefore, answered

their call by employing a quantitative method to measure Human Resource capabilities for the technological firms by using Value-Rare-Costly-to-imitate-Organizationally-supported (VRIO) framework (Barney & Hesterly, 2006; Barney et al., 2012; Peng, 2013) to evaluate the human resource capabilities of professional service firms, affecting competitiveness.

This helps build competencies that give one organization unique competencies that act as a source of sustainable competitiveness. Complementarities may exist between the three theories and there is a need to explore how each complements the shortcomings of the other (Peng, 2013). The study is of the view that an organization in an industry with no valuable, rare, heterogeneous and inimitable resources may develop key competencies that will be a source of sustainable competitiveness for the organization. Thus, the unique role of developing competencies while combining key resources to generate sustainable competitiveness from organizations' processes needs consideration by theorists and researchers. In addition while undertaking this; the existing complementarities suggested by proponents of diverse theories explaining organization strategic behaviour also need to be given attention (Barney & Hesterly, 2006). This theory was relevant to the study because the effect of human resource capabilities such as human resource competencies, processes and practices on sustainable organizational competitiveness were established with the moderating role of work arrangements.

2.4.2 Social Exchange Theory

Social exchange theory by Blau (1964) is one of the most influential conceptual frameworks for understanding attitudes and behaviour in organizations (Cropanzano & Mitchell, 2005). Although different views of social exchange exist (Coyle-Shapiro

& Conway, 2004; Cropanzano & Mitchell, 2005), there is an agreement that social exchange involves a series of interdependent interactions that generate an obligation to reciprocate. In this regard, social exchange involves the exchange of tangible and intangible resources that are governed by the norm of reciprocity (Gouldner, 1960).

As Gouldner (1960) intimated, the norm of reciprocity is a universal principle to guide behaviour so that an individual is obliged to return favourable treatment received from a donor. There is an expectation that in providing another person with benefits, an obligation has been created that the recipient will reciprocate the benefits received. This creates a mechanism by which the exchange relationship is strengthened through the ongoing conferring of benefits and discharging of obligations.

Consistent with the tenets of social exchange theory, when employees are the recipients of favourable treatment from their employer, they reciprocate by enhancing their attitudes and behaviour toward the organization (Moorman, Blakely & Niehoff, 1998; Rhoades, Eisenberger & Armeli, 2001). This theory was therefore relevant to the study in that, human resource capabilities exhibited by effective human resource competencies, processes and practices affected sustainable organizational competitiveness moderated by work arrangements as found out in this study.

2.4.3 Performance Theory

Researchers have adopted various perspectives for studying performance and hence sustainable organizational competitiveness. According to Campbell, McCloy, Oppler & Sager (1993) on the most general level one can differentiate between three different perspectives: Firstly, an individual different perspectives which searches for individual characteristics such as general mental ability, personality as sources for

variation in performance. Secondly, situational perspective focuses on situational aspects as facilitators and impediments for performance. Lastly, a performance regulation perspective which describes the performance process that enables sustainable competitiveness and are not mutually exclusive but approach the performance phenomenon from different angles which complement one another.

The individual differences perspective focuses on performance differences between individuals and seeks to identify the underlying factors. The core question to be answered by this perspective is: Which individuals perform best? The basic idea is that differences in performance between individuals can be explained by individual differences in abilities, personality and motivation. According to Campbell (1990) and Campbell *et al.* (1993) a general model of individual differences in performance which became very influential was formulated. In his model, Campbell differentiates between performance components such as job specific task proficiency, determinants of job performance components and predictors of these determinants.

Further Campbell *et al.* (1990) describes the performance components as a function of three determinants, declarative knowledge, procedural knowledge and skills and motivation. Declarative knowledge includes knowledge about facts, principles, goals, and the self. It is assumed to be a function of a person's abilities, personality, interests, education, training, experience, and aptitude-treatment interactions. Procedural knowledge and skills include cognitive and psychomotor skills, physical skill, self-management skill, and interpersonal skill. They also argued that Predictors of procedural knowledge and skills are again abilities, personality, interests, and education, training, experience, and aptitude-treatment interactions and additionally

practice. Motivation comprises choice to perform, level of effort, and persistence of effort.

The situational perspective refers to factors in the individuals' environment which stimulate and support or hinder performance. The core question to be answered is: In which situations do individuals perform best? The situational perspective encompasses approaches, which focus on workplace factors but also specific motivational approaches, which aim at improving performance by reward systems or by establishing perceptions of equity and fairness (Adams, 1963; Greenberg, 1990). Most of the existing leadership research can be subsumed under this perspective.

The performance regulation perspective takes a different look at individual performance and is less interested in person or situational predictors of performance. Rather, this perspective focuses on the performance process itself and conceptualizes it as an action process. It addresses as its core questions: How does the performance process look like? And what is happening when someone is performing? Typical examples for the performance regulation perspective include the expert research approach within cognitive psychology (Ericsson & Lehmann, 1996; Frese & Zapf, 1996). Most of these approaches focus on regulatory forces within the individual.

Research on expertise and excellence has a long tradition within cognitive psychology (Ericsson & Smith, 1991) and is increasingly referred to within work and organizational psychology (Sonnentag, 2000). It is one of the main goals of expertise research to identify what distinguishes individuals at different performance levels (Ericsson & Smith, 1991). More specifically, expertise research focuses on process characteristics of the task accomplishment process. From the process point of view, goal development, information search, planning, execution of the action and its

monitoring, feedback processing can be distinguished (Frese & Zapf, 1994) Performance depends on high goals, a good mental model, detailed planning, and good feedback processes.

2.5 Conceptual Framework

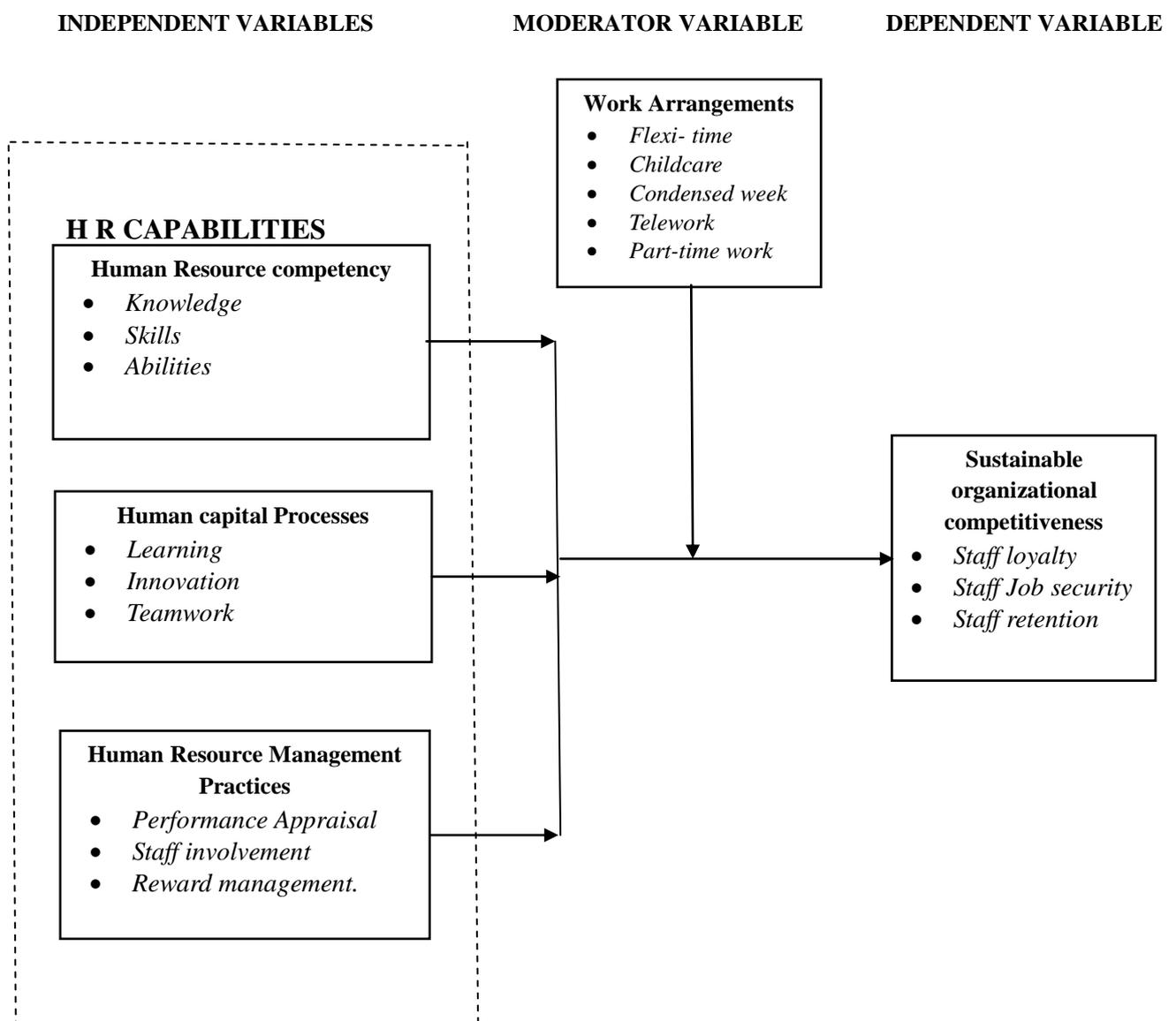
The conceptual framework shows the frame within which the study was organised. The HR competency, which comprises knowledge, skills and abilities are the elements that every employee possesses. These elements are the unique attributes that qualifies a candidate during recruitment process. The HR Competency is unique in that every organization has a distinctive selection criterion in recruitment of employees. The elements of knowledge, skills and abilities subsequently vary as well; therefore, performance variation among organizations can be attributed to uniqueness of human resource competency.

On the other hand, Human capital processes which includes learning or training, cooperation or teamwork and innovation; these are the mechanisms that an organization exercise in order to enhance the HR competencies. Similarly, the human capital processes provides uniqueness in every organization hence, have been strongly attributed to competitiveness. The model supports the work by Sexton *et al.* (2001) that an ideal relationship between Human Resource Competencies (HRC) and human capital processes is required in ensuring sustainable competitiveness. Commitment and citizenship or loyalty is achieved when favourable work practices are adopted by an organization.

The inclusion of work arrangement as a moderator is essential since it can provide a measurable relationship between the Human Resource Competencies and human capital processes, Human Resource Management Practices and the effect on

sustainable organizational competitiveness. Suitable work arrangements enhance employee performance evident in increased levels of commitments and loyalty. The conceptual framework provides a model that depicts the relationships and effects on the eventual sustainable organizational competitiveness as shown in Figure 2.1.

Figure 2.1: Conceptual Framework of human resource capabilities, work arrangement and sustainable organizational competitiveness.



Source: (Researcher, 2015)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter is concerned with the description of procedures, which were used in carrying out the study. These include the research design, sampling procedures, research instruments and data collection procedures, data analysis, limitations and delimitations of the study and ethical considerations.

3.1 Research philosophy

Research methodology is a philosophical stance of worldview that underlies and informs the style of research (Sapsford & Jupp, 2006). In another view, Creswell (2009) considered research methodology as the overall approach to the design process of conducting research including all phases from the theoretical underpinning to the collection and analysis of data. Therefore, it could be deduced from the above argument that the philosophical worldview of things is vital to the meaning of research methodology.

Pragmatism philosophy is the paradigm used in this study and concerns the thinking that choosing between one position (epistemology, ontology, or axiology) and the other is somewhat unrealistic in practice; and it is argued that the most important determinant of which position to adopt is the research questions (Creswell *et al.*, 2011; Saunders *et al.*, 2009).

It is concerned with the way in which things are viewed in the world (Saunders *et al.*, 2009; Yin, 2009). It helps to put into perspective the research design, to know which research design would work and which would not, and to identify and even create a

design that may be outside the researcher's knowledge supported by past experience (Easterby-Smith *et al.*, 2003).

All research is interpretive; it is guided by the researcher's set of beliefs and feelings about the world and how it should be understood and studied. However, understanding research philosophy and agreeing to adapt to a particular perspective for a proper research paradigm are probably contested as the first step in setting other research parameters and choices to a study (Kagioglou *et al.*, 1998).

The pragmatic approach as used in this study emphasises that multiple realities exist in any given premise, and that, the researcher's choice of paradigm is dependent on the research question the study is trying to solve (Saunders *et al.*, 2009). The pragmatic approach provides for the use of both mixed research methodologies to collect information and make inquiry into complex phenomenon of social and natural contexts (Saunders *et al.*, 2009; Creswell, 2009; Morgan, 2007).

The pragmatic approach further helps to provide a grounding where the research avoids engaging in issues of insignificance rather than issues of truth and reality and as such is intuitively appealing (Creswell, 2009; Tashakkori & Teddlie, 2003). A pragmatic approach allows areas to be studied that are of interest, embraced methods that are appropriate and use findings in a positive manner in harmony with a recognised value system (Creswell, 2009).

Pragmatic research approach as utilized in the study also perceives issues differently in different scenarios and permit different views and interpretation of the world. The research adopted the philosophy of pragmatism; which considers the importance of research in the findings' practical consequences. Pragmatism considers that no single

viewpoint can ever give the entire picture and that there may be multiple realities (Saunders *et al.*, 2009) and hence the use in the study.

3.2 Research Design

A research design is any plan and structure of investigation so conceived as to obtain answers to research questions. The research approach used for this study was explanatory research design. According to Saunders *et al.* (2011) studies that establish causal relationships between variables use explanatory design. In terms of time horizon, the study was carried out at a specific point in time and was deemed appropriate as it is often identified with survey research that yields data that can be used to examine relationships among variables (Saunders *et al.*, 2011). Descriptive studies are considered as a means to an end rather than an end in itself (Creswell, 2008). This means that since research utilised description it is a precursor to explanation. Explanatory approach provides analysis and explanation why or how the phenomenon being studied happens (Earl, 2010). Explanatory research also aimed to understand phenomena by discovering and measuring causal relationships between variables.

Explanation of why and how there is a relationship between two or more aspects of a situation or phenomenon was established by using explanatory design Earl (2010). Information on human resource Competency, human capital processes and HRM practices was therefore sought and its effects on sustainable organizational competitiveness established with the use of explanatory design. The statistical analysis of the data showed that the variation in human resource capabilities in the organizations caused variation in performance and eventual sustainable organizational competitiveness. Moderation by work arrangement represented indirect causal link in

the relationship between human resource capabilities and sustainable organizational competitiveness as seen in the conceptual framework. The explanatory research approach was therefore used to provide better understanding of the effects of human resource capabilities on sustainable organizational competitiveness. The objective of explanatory research was to portray an accurate profile of persons, events or situations (Earl, 2010).

Explanatory design approach build on the assumption that the views obtained generate vital information on the research question thus, appropriate for this study. This approach captured subjects' perspectives as well as perceptions of the variables studied (Creswell, 2003). Explanatory survey design which is a mixed method approach was therefore used in the study. Surveys were helpful in learning about trends or characteristics of individual attitudes, opinions, beliefs, practices, successes or effectiveness of a program and identification of employees' needs (Creswell, 2008). This basically assessed the relationship between independent, dependent and moderating variables (Kothari, 2009). The researcher used the design to obtain information from various employees on how the use of work arrangement options, the length of time used and any other options adopted by their organizations to enhance sustainable organizational competitiveness.

The designs adopted survey, which describes the status quo, the correlation study that investigated the relationship between variables, to developmental studies, which sought to determine changes over time (David, 2013). The data was collected at the same time from all the relevant people, subjects or phenomena hence cross-sectional survey (McMillan, 2000). Employees were also contacted on their role in the strategy used by the organization and what they felt about it. The research adopted the

philosophy of pragmatism; which considers the importance of research in the findings' practical consequences. Pragmatism considers that no single viewpoint can ever give the entire picture and that there may be multiple realities. This means that the research design enabled credible, reliable and relevant data to be collected that supported subsequent action (Saunders *et al.*, 2009).

3.3 Target Population

The target population refers to the complete group of specific population elements, which are relevant to the research (Creswell, 2003). The target population for this study was the staff of mobile phone service provider organizations in Western Region in Kenya. The organizations included: Safaricom, Airtel, and Orange service providers. They were categorised into: Regional Sales Managers, Area Sales Managers, Trade development representatives and Customer Care employees from these organizations and its agencies. These were staff in Western Region. The target population is shown in Table 3.1.

Table 3.1: Population size

Occupation position	Service Providers		
	Safaricom Mobile	Airtel Mobile	Orange Mobile
Regional sales manager	10	7	5
Area sales manager	17	14	16
Trade development Reps	308	183	200
Consumer care staff	300	144	75
Totals	635	348	296

Source: Survey Data (2014)

3.4 Sampling Design and Techniques

Sampling is a procedure of using a small number of items or part of the whole population to make conclusions about the population (Karami, 2001). It enabled the researcher to make estimates of unknown characteristics of the population and generalize. The study employed both probability and non-probability sampling designs.

A stratified sampling design was used to select strata from the hierarchies of employees in the mobile phone service provider sector and then random sampling used to select the participants from every stratum of employees in the organizational structure. This guaranteed, in the long run, every possible sample selected with known and equal chance of participating (Joseph, 2012). The categories: Consumer Regional Sales Managers, Area Sales Managers, Trade development representatives, Customer Care employees (under organization) and Customer care staff (under contract) formed the stratum. From the stratum, proportionate sample was obtained and to sample the actual individuals as respondents to answer the questionnaire; random sampling was adopted.

3.4.1 Sample Size

The researcher adopted Yamane (1973) model for determining the sample size where the population size is known.

$$n = \frac{N}{(1 + Ne^2)} = 1279 / \{1 + 1279(0.05)(0.05)\}; \text{ Hence } 300.61 \text{ approximately } 300$$

Respondents.

$$N = \text{population size} = 1279$$

n = sample size

e = standard error; acceptable level is 0.05.

The sample size from each stratum was obtained using the proportionate allocation since the stratified random sampling design was adopted. The formula for sample size is as given by Gupta (2011) below:

$$n_i = n \frac{N_i}{N}$$

Where,

n_i = sample size from the strata

n = intended overall sample size

N_i = population of the strata

N = entirety or population size

Calculation of the sample size was based on the information that the target population is 1279. For example Regional sales managers for Safaricom will sample: $(300/1279) = 2$ Respondents; the sample size calculation was applied for all the cells. This is shown in Table 3.2.

Table 3.2: Sample Size Distribution per Provider

Occupation position	Service providers			Totals
	Safaricom mobile	Airtel mobile	Orange mobile	
Regional sales manager	2	2	1	5
Area sales manager	4	3	4	11
Trade development Reps	72	43	47	162
Consumer care staff	70	34	18	122
Totals	148	82	70	300

Total sample size= 300.

3.5 Data Collection instruments and procedures

This section presents the sources of data for the study and the data collection instruments used.

3.5.1 Type and Sources of Data

Questionnaires were used in collecting substantive data for the study. Primary data was first-hand information collected by the researcher from the field while secondary data was obtained from records and manuscripts of the communications regulator (Communications Authority of Kenya-CAK) and documents from sampled organizations like journals and annual reports. These were only meant to verify the primary data and not much analysis was done on these data. This type of data validated the primary data collected (Johnson & Christensen 2008). Such information was retrieved from business magazines, annual reports of the government institutions especially Communication Authority of Kenya (CAK) which offered reliable source of secondary data on mobile service providers in Kenya. In addition, documents from the sampled mobile service providers were used like the annual reports and journals to

get data on adoption of new technology (innovation) and response to changing market conditions.

3.5.2 Questionnaires

Questionnaires were used to collect first-hand information from the respondents. The research used structured questionnaires that had bio data on the first part. This gathered inclusive information and increased the availability of the information relevant in mixed methods research (Crouch & Mckenzie, 2006). Five point Likert scale was used to design the questionnaire. This is a tool used to capture psychometrics. Use of questionnaires allowed the respondents to share experiences that identified their trait and characteristics openly. Use of this tool also ensured that comprehensive data on the human resource capabilities and work arrangements in the target organizations were collected.

3.5.3 Reliability and validity of Research Instruments

Reliability refers to the extent to which data collection techniques or analysis procedures yielded consistent findings. Reliability tests the consistency of items when using multiple measurements of a variable (Hair *et al.*, 2010). The survey instruments were pilot tested on 5.0% of randomly selected participants (Hair *et al.*, 2010) representing the customer care employees, area sales managers, and Regional sales managers of the related firms within the mobile phone service sector. As a diagnostic rule of the thumb, (the agreed upon) the lower limit for Cronbach's Alpha was 0.70, though it is acceptable to 0.60 in exploratory studies (Hair *et al.*, 1998).

Cronbach's Alpha of more than 0.7 was targeted for reliability of the instruments and this is as shown in table 4.3. Validity on the other hand is concerned with whether the findings are really about what they appear to be. It refers to the issue of ensuring the

measurement variables for a concept accurately measure that concept (Bryman & Bell, 2007; Crowther & Lancaster, 2005). For example, work practices vary across firms therefore may lead to failure by an employee to answer a question answered by a counterpart in another firm.

This potential lack of validity in the conclusions were minimised by a research design that is built in the opportunity for focus groups after the questionnaire results were analysed. Creswell (2002) charted the threats to validity, which provides a useful way of countering shortcoming of validity. The goal of the pilot study was to validate the instruments through content validity, face validity, criterion validity and concurrent validity. The outcomes from the pilot study were discussed with lecturers and colleagues in Moi University to validate the document.

3.5.4 Measures of Variables

In this study, three types of variables were measured namely: independent, moderator and dependent variables. The dependent variable was sustainable organizational competitiveness and independent variable was human resource capabilities (human resource competencies, human capital processes and human resource management practices), the moderator variable was work arrangements.

Variables	Measures	Data Measurement
Human resource competencies. (HRC)	Knowledge	Five point Likert scale
	Skills	Five point Likert scale
	Abilities Adopted and modified from (Hase, 2000)	Five point Likert scale
Human capital processes (HCP)	Learning	Five point Likert scale
	Innovation	Five point Likert scale
	Teamwork (Bart 2009,wright et al 2007; John et al 1998,Sang 2005)	Five point Likert scale where 5-“strongly agree” and 1-“strongly disagree”
Human resource management practices (HRMP)	Employee involvement Performance appraisal Reward management Adopted from Hase, (2000) and items from Antonio <i>et al</i> (2011).	Five point Likert scale where 5-“strongly agree” and 1-“strongly disagree
Work Arrangement (WA)	Flexitime Childcare Condensed week Telework Part-time work Standard work Nicklin <i>et al.</i> (2010).	Five point Likert scale where 5-“strongly agree” and 1-“strongly disagree
Sustainable organizational competitiveness (SOC)	Staff loyalty Staff job security Staff retention Measures adopted and modified Bart (2009), Wright <i>et al.</i> (2007); Sang (2005), Barney’s (1991).	Five point Likert scale where 5-“strongly agree” and 1-“strongly disagree

3.6 Data Analysis

Data from the questionnaires were recorded and Descriptive analysis was performed to summarize the data in form of general characteristics (gender, age, level of education and experience) of respondents, means and standard deviation of constructs were also determined.

Kaiser-Meyer-Olkin (KMO) is a measure of sampling adequacy. It is a measure of how suited the data is for Factor Analysis. The test measures sampling adequacy for each variable in the model and for the complete model. The statistic is a measure of the proportion of variance among variables that might be common variance. The lower the proportion, the more suited your data is for Factor Analysis. The KMO figures range from 0.00 to 1.00; when the value ranges from between 0.00 to 0.49 – unacceptable; 0.50 to 0.59- miserable; 0.60 to 0.69-mediocre; 0.70 to 0.79-middling; 0.80 to 0.89- meritorious and 0.90 to 1.00- marvellous. This was carried out on the data to establish whether there was need for factor analysis.

Bartlett's test of sphericity, which is a measure of sampling adequacy, was used to check the case of variable ratio for analysis. Snedecor and Cochran (1989) argued that Bartlett's test is used to test if k samples are from populations with equal variances; equal variances across samples are referred to as homoscedasticity/ homogeneity of variances. A significant test shows that the R-matrix is not an identity matrix; hence there are some relationships between the variables the researcher hopes to include in the analysis. The measure was used to test the Null hypotheses that the original correlation matrix is an identity matrix. Some statistical tests (ANOVA) assumes that variance are equal across groups (samples); the Bartlett's test was used to verify this

assumption. The two tests provided a minimum standard to be passed before a factor analysis.

Subsequently, Factor analysis (FA) was used to reduce, extract, establish unidimensionality and retain variables or factors which met loading threshold to be used for further analysis. It is a very significant instrument utilized in development, refinement, and evaluation of tests, scales and measures (Williams *et al.* 2010). Factor analysis with principle method having orthogonal “varimax” rotation was computed to determine whether Human resource capabilities (Human resource competencies, Human capital processes and human resource management practices), work arrangements, and sustainable organizational competitiveness represented distinct constructs. According to Tabachnick & Fidel (2007) orthogonal varimax rotation is a commonly used method as it minimizes the complexities of factors by maximizing variance of loadings on each factor. Hair *et al.*, (1995) on the other hand said using the factor collinearity diagnostics will be generated to analyse the model for the presence of multi collinearity and identify specific variables that would cause multiple correlations.

Consequently, the direction and strength of the relationship between the independent variables (Human Resource Competencies , Human Capital Process and Human Resource Management practices) and dependent variable (sustainable organizational competitiveness) was examined using Pearson’s correlation analysis based on a one - tailed test at 95% level of significance. Correlation tests were conducted to establish the relationship between the variables human resource competencies, human capital processes, human resource management practices and work arrangement with the dependent variable sustainable organizational competitiveness. The interpretation of

the results was based on correlation analysis and multiple hierarchical regressions analysis results were used to draw conclusions concerning the significance of the findings.

3.6.1 Analytical Model

This involved the use of moderated regression models to analyse work arrangement moderating the effect of human resource capabilities on sustainable organizational competitiveness of mobile phone service providers in Kenya. Regression of the outcome, which is sustainable organizational competitiveness, with respect to the variables human resource competencies, human capital processes and human resource management practices was conducted. This produced a model for prediction. The predictor variables were weighted in order to form a composite variable (human resource capabilities) that aimed to maximize prediction of the outcome variable. Regression coefficients were used to indicate the expected change in the outcome variable for an increase of one unit of the predictor variable holding all other predictor variables constant. The regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \dots \dots \dots (i)$$

Y= sustainable organizational competitiveness (Dependent Variable)

β_0 = Constant

X_1 = Human resource competencies (Independent Variable)

X_2 = Human capital Process. (Independent Variable)

X_3 = Human resource management practices (Independent Variable)

X_4 = Work Arrangements (Moderator Variable)

Moderated regression equation

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4(X_4) + e \dots \dots \dots \text{(ii)}$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4(X_4) + \beta_4(X_4 * X_1) + e \dots \dots \dots \text{(iii)}$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4(X_4 * X_1) + \beta_5(X_4 * X_2) + e \dots \dots \dots \text{(iv)}$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4(X_4 * X_1) + \beta_5(X_4 * X_2) + \beta_6(X_4 * X_3) + e \dots \dots \text{(v)}$$

Y= sustainable organizational competitiveness (Dependent Variable)

β_0 = constant

X_1 = Human resource competencies (HRC) (Independent Variable)

X_2 = Human capital Process. (HCP) (Independent Variable)

X_3 = Human resource management practices (HRMP) (Independent Variable)

X_4 = Work Arrangements (WA) (Moderating Variable)

e- Error term.

3.6.2 Assumptions of the Regression Model

Testing of independent variables, moderator and dependent variable was possible since normality and linearity assumptions of regression model were considered. Regression assumes that variables have normal distribution. Non- normally distributed variables with substantial outliers can distort relationships and significant tests. Kolmogorov smirnov tests and Shapiro-Wilk were used to test for normality (sample size more than 50) (Osborne 2001). These can handle sample sizes as large as 2000. Multivariate preliminary data analyses by Osborne (2001) showed that removal of univariate and bivariate outliers reduced the probability of Type I and Type II errors and improved the accuracy of estimates.

According to Ghozali (2005), normality can be detected by looking at the p-value of Kolmogorov-Smirnov test and Shapiro-wilk. If p-value is greater than the 5% significance level, the residuals are considered as normally distributed. If it is below 0.05, the data significantly deviate from a normal distribution. This is as shown in Table 4.8. Multiple hierarchical regressions can only accurately estimate the relationship between dependent and independent variable if the relationships are linear in nature. However, in social science research, there are many instances where non-linear relationships occur (for example anxiety).

Linearity implies that the mean values of the outcome variable for each increment of the predictor(s) lie along a straight line. Correlation analysis can be used to assess association between predictor and criterion. Table 4.20 shows that there is a positive association among the variables and the values are not greater than 0.9. Pedhazur (1997), Cohen and Cohen (1983) and Feldman (1985) suggested the use of examination of residual plots (plots of standardized residual as a function of standardized predicted values, readily available in most software). However for this study, correlation coefficient was used.

The other assumption of regression is Multi-collinearity, which is a term used to describe the inter-correlations or inter-associations among the independent variables. Multi-collinearity can be detected with the help of tolerance and its reciprocal variance inflation factor (VIF). Tolerance should be above 0.20 (Menard, 1995) and this was the cut-off value for this study (Table 4.20). Homoscedasticity is another factor that needs consideration in regression analysis. At each level of the predictor variable(s), the variance of the residual terms should be constant to attain homoscedasticity (constant variance). Durbin- Watson was used to test independence

and the variance ranges from 0 to 4. However, acceptable range is 1.50-2.50 (Hair *et al.*, 2006).

3.7 The Limitations of the Study

The research study does not claim perfection as it is faced with other limitations inherent in the explanatory research design adopted. Respondents might have falsified the results. According to Yetton and Sharma (2001), respondents might not always be truthful in their answers to a survey. Some respondents deliberately withhold or falsify information they give due to bureaucracy and secrecy within the mobile service industry resulting from competition.

3.8 Ethical Considerations

The researcher sought permission to carry out the research from the relevant authorities, which included the Government institute that deals with research ; National commission for science, Technology and innovation (NACOSTI) , county commissioners of the relevant counties , the institution (School of Business and Economics; Moi university) and the participating organizations(Mobile service provider firms where applicable).

The researcher also developed an informed consent letter for the participants to accept before they participated in the research. According to Sarantakos (2005), the letter included among others; identification of the researcher, purpose of the research, benefits for participating, provision of contact institution in case any questions arises and guarantee of confidentiality.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter deals with data analysis, presentation, interpretation and discussion of the findings of the study. This chapter is divided into the following sections: General characteristics of the respondents; Demographics; descriptive analysis of data and it also offered both the correlation and regression analyses.

4.1 Preliminary Data Analysis

Before any analysis was done, data cleaning procedures were conducted on the raw data. Firstly, cosmetic data cleaning which involved investigation of each variable was done by running frequency of each variable. The researcher ensured each variable name and variable label were linked to the question on the questionnaire; this was done to ensure consistency and clarity of the data to be used for analysis. Further, the five-point Likert was checked to ensure that the response category values for every question had the correct values and value labels. In addition, as a data cleaning procedure, the variables were formatted accordingly, that is either string, numeric, or date and corresponding type that is nominal, interval, or ordinal; the Likert type responses were considered ordinal in nature with strongly disagree with least effect and strongly agree with highest weight. Moreover, the data was checked for missing values since each type of missing response was handled differently.

4.1.1 Response Rate and Missing Data

There were a total of 258 respondents comprising of staff of the provider firms which was out of the expected 300 respondents giving a response rate of 86%. The data set reflected sample from three key provider organizations. Due to the number of

variables that were considered, the sample size was deemed large enough making up the response rate which was deemed sufficient for the study and its generalization (Curtin *et al* 2005).

Missing Value Analysis (MVA) was performed to check for pattern of missing data and the magnitude of the missing values. Missing value analysis was designed to highlight pattern of missing values as well as to replace them in the data set. Univariate statistics computed showed that there was no count of missing values for all items. This could be as a result of the level of education of respondents as most were at degree level, 40.3% of the respondents and age of the respondents with majority (40.3%) aged between 26-33 years followed by 23.2% who were aged between 42-49 years.

4.2 General characteristics of the Respondents

The study was informed by responses from staff of mobile phone service provider firms who were critical in determining the effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya with the moderating role of work arrangements. Respondents were asked to give general information regarding their background. It is evident that majority of gender were male (66.9%), while 33.1% were female. This indicated that the researcher captured views from the representative sample of all the employees on gender basis. The findings also established the age of the respondents with majority (40.3%) aged between 26-33 years followed by 23.2% who were aged between 42-49 years while 21.5% between 34-41 years and finally 5% were above 50 years.

This implied that the staffs were young workforce a factor that was common in studied mobile phone services providers in western Region in Kenya. It further

indicated that they were adequately exposed to issues of human resource capabilities for sustainable organizational competitiveness. The respondents were mature enough to comprehend the issues involved in human resource capabilities and its effect on sustainable organizational competitiveness in mobile phone service providers in Kenya with the moderating role of work arrangements. The respondent's ages supported Lawson *et al* (2005) assertions that respondent's ages have some effect on the reliability of results.

From the analysis, it was also clear that majority (40.3%) of the respondents were degree holders. This implied that they possessed the required knowledge with a considerable number furthering their studies to masters and PhD levels to enhance their capacities whilst meeting changing requirements of the job market. Moreover, the fact that majority of the respondents had degree qualification and above implies that they were qualified to reliably answer questions about effect of human resource capabilities on sustainable organizational competitiveness.

The respondents had served for several years at their workstations at varied positions in the company. On work experience, a significant number 29.3% had worked in the mobile phone service sector for between 1-2 years. This implies that a fair proportion of respondents were experienced. The level of experience indicated above is significant because Lawson *et al.* (2005) argued that the credibility of the information gathered in any study is informed by the many years of the respondents' service to the organization. The experience proves the validity and reliability of the information obtained. Their skills, knowledge and expertise had been tested for a long period hence their perception on the matter under study had been influenced by their experience. This is as provided in table 4.1

Table 4.1: Demographic Information of the Respondents

Demographics	Frequency	%
Gender		
Male	173	66.9
Female	85	33.1
Total	258	100
Age		
18-25 years	26	9.9
26-33 years	114	40.3
34-41 years	55	21.5
42-49 years	60	23.2
50+	13	5
Total	258	100
Level of Education		
Secondary	34	13.3
Tertiary	63	24.3
Degree	103	40.3
Masters Degree	49	18.8
PHD	9	3.3
Total	258	100
Work Experience		
Below 1 year	94	36.5
1-2 years	76	29.3
2-5 years	41	16
6-10 years	47	18.2
Total	258	100

Source: Research Data (2015)

4.3 Descriptive Analysis

Descriptive analysis was performed on the variables and the results are presented in tables.

4.3.1 Human Resource Competencies

The first objective sought to establish the effect of Human resource competency on sustainable organizational competitiveness. The results of descriptive analysis of Human resource competencies are as shown in Table 4.2. The descriptive statistics for thirteen items measured for Human Resource Competencies variable showed mean and standard deviation. The second column shows the arithmetic mean of each variable, the third column shows the respective standard deviation. All the variable

means were above 3.0 except the indicator of provision of less orientation on the job after recruitment, which has a mean of 2.73. Understanding job description had the highest mean of 4.14, which is an indication that employees understood their job description.

This supports Vivien (2006) assertions that, for organizations to ensure sustainability in the volatile market, there is need for an effective human resource to be in place to counter the tight competition prevailing. Organizations require competent human skills to ensure success is achieved. The findings also supported Khandekar *et al.* (2005) view that organizations survive on employee's knowledge and understanding to compete effectively in the market. If this is realized then the organization can gain a competitive edge. The findings are also in line with Wright *et al.* (2001) claim that knowledge, skills and abilities are inherent factors possessed by every individual in an organization. This was because knowledge has long been recognized as a valuable resource by economists and has been a focus of significant attention in the human capital literature, in particular the issues of knowledge generation, leverage, transfer and integration.

Table 4.2: Descriptive Statistics for Human Resource Competencies

Items	N = 258	Mean	S.D.
I was required to possess a professional designation before I was hired		4.00	0.727
The job I am performing is related to my professional qualification		3.86	0.926
I was allocated a profession designation based on time invested in education and related training		3.48	0.824
I am encouraged to improve skills		3.93	0.890
I clearly understand my job description		4.14	0.903
I feel that my skills are valued and used		3.92	0.926
I have an up to-to-date job description from the organization		3.89	0.859
I'm provided with job rotational practices to enhance my skills		3.80	0.889
I came to this organization experience from other organization		3.36	1.058
I was provided with less orientation on the job after recruitment		2.73	1.142
I was assigned to my job based on education qualification		3.65	0.922
I was hired with my professional knowledge for a specified job		3.53	0.804
I shape my own job description		3.28	1.041
Average		3.66	0.92

SD = Standard deviation. Reliability; Cronbach's Alpha = 0.826.

Source: Research Data (2015)

4.3.2 Human Capital Processes

The second objective sought to establish the effect of Human capital processes on sustainable organizational competitiveness. For human capital processes, all the items' means were above 3.0 except the indicator of the organization does less to develop the competencies which had a mean of 2.88. The company has done little to adopt and integrate new technology in its activities with a mean of 2.84 and the fact that employees are encouraged to be creative, and "think outside the box" which had a mean of 2.83. "Strong Employee oriented skills are a feature of how change is managed in our organization" had the highest mean of 4.24 which is an indication that the employees agree to the fact that they are involved as change agents.

This is in line with Inyang (2008) assertions that many transactional or administrative activities involved in managing the human resources of an organization such as training and development, staff motivation, compensation, staff commitment and

quality performance are meant to be carried out effectively to influence the achievement of sustainable organizational competitiveness. The findings also support Rizov and Croucher (2008) empirical findings on relationship of HR processes and organizational performance in European firms. They found out that collaborative form of HR process characterized by valuing employees as assets and core partners contributed to sustainable organizational competitiveness, also, their assertions that creating and communicating a culture of partnership between employer and employees as well as among employees affected organizational performance.

Table 4.3: Descriptive Statistics for human capital Processes

Items	N = 258	Mean	S.D.
I have been encouraged to further my training related to my job.		3.90	0.845
I was inducted when in I joined the organization with job-related training.		4.23	0.737
I have been equipped with skills to help me move into new roles in the future.		4.17	0.818
I 'm encouraged to develop new services.		3.96	0.753
I'm encouraged to be innovative in the way I perform my duties		3.93	0.691
The organization does less to develop employee's competencies.		2.88	1.076
The company has done little to adopt and integrate new technology in its activities.		2.84	1.021
Leadership is seen as a low-level management skill in our organization.		3.03	1.103
Managers in our organization are involved in human resource development		3.87	0.763
The organization has effective team building exercises		4.00	0.839
We always have open communications with managers.		4.01	0.801
We are encouraged to participate in suggesting improvements in the organization		3.97	0.801
I have been encouraged to further my training related to my job.		4.02	0.748
Strong employee oriented skills are a feature of how change is managed in our organization		4.05	0.628
In our organization there is little effort put into developing managers.		3.90	0.726
I Learn more at work than going for training outside the organization.		3.09	1.027
I am doing things the same way since I was recruited in this organization		3.51	0.838
We are encouraged to be creative, and to think 'outside the box'.		2.83	1.081
Strong employee oriented skills are a feature of how change is managed in our organization		4.24	0.948
Average		3.71	0.85

SD = Standard deviation Reliability; Cronbach's Alpha = 0.653.

Source: Research Data (2015)

4.3.3 Human Resource Management Practices

The third objective sought to establish the effect of human resource management practices on sustainable organizational competitiveness. The analysis showed that all the item means were above 3.0 except there is no connection between the work I do and the company's strategic objectives($M= 2.84$; $SD= 1.122$) showing that the responses were significant. "My performance appraisal is done regularly" had the highest mean of ($M=3.99$; $SD= 0.754$) which is an indication that performance appraisal was done regularly.

The findings support (Kaplan & Norton, 1992, 1993) claims that Human resource management practices play three major roles namely building critical organizational capabilities, enhancing employee satisfaction and improving customer and shareholder satisfaction. The findings also concur with Ulrich & Lake, (1990) report that many companies that attempt to align human resource practices with business strategy, and strategic HR framework involves three components. The business strategy which represents the business strategy of the company and defines how the company wins in the marketplace based on customer buying criteria, competition, government regulations and supplier situation. By integrating the strategic HR framework with the business framework, the interrelationships among components can be identified in two linkage chains. In the first chain, human resource practice can be conceptualized as key drivers in building organizational capabilities, enhancing employee satisfaction, and more innovatively, shaping customer satisfaction (Ulrich, 1989; Ulrich & Lake, 1990) as shown in table 4.4.

Table 4.4: Descriptive Statistics for Human Resource Management Practices

Item	N = 258	Mean	S.D
My performance appraisal is done regularly		3.99	0.754
We are rewarded in this organization based on performance		3.80	0.801
I'm always involved in decision making		3.72	0.760
There is no connection between the work I do and the company's strategic objectives		2.84	1.122
Employee needs are recognised as much as their skills in our organization.		3.84	0.763
I'm rarely rewarded for outstanding performance.		3.11	0.968
Managing the complexity of change is a critical management function in our organization		3.90	0.664
We work through self-managing teams.		3.90	0.539
Few employees in this organization are involved in most of the decision making		3.41	0.785
Average		3.61	0.80

SD = Standard deviation. Reliability; Cronbach's Alpha = 0.742

Source: Research Data (2015)

4.3.4 Work Arrangement

The fourth objective sought to determine the moderating role of work arrangement on the relationship between Human Resource capabilities and sustainable organizational competitiveness. The items that measured of work arrangement had all means above 3.0 except for “we take children to day care centres for baby nursing in the organization” (M=2.42; SD=.645) showing all the responses were significant. I like the kind of work arrangement we have in the organization was significant since it had the highest mean of (M=3.28; SD .807) which is an indication that the employees had a sense of satisfaction and accomplishment in the work arrangement.

These findings are in tandem with (Estes & Michael, 2005) claim that the objective of every organization to optimize employee productivity through balance between work activities and non-work activities have to be realized in order to succeed in attaining the optimality. Work arrangements involve policies laid down by an organization to regulate family or personal leave, flexible work options and dependent care. The

findings also support Grandey & Cropanzano, (1996) assertions that provision of work-life practices has the potential to generate improved attitudinal and behavioural outcomes among employees. Their work-family research had shown that trying to manage demands from multiple roles such as work and family leads to reduced resources and increased strain in the form of work-to-family conflict (Table 4.5)

Table 4.5: Descriptive Statistics for work arrangement

Item	N = 258	Mean	S.D.
We are allowed to work on flexible time provided we complete the required hours per day.		2.94	0.655
This organization allows us to work for less than six days in a week.		2.68	0.730
I work on Part time in this organization.		2.53	0.734
I like the kind of work arrangement we have in this organization		3.28	0.807
My work gives me a sense of accomplishment.		3.25	0.745
I am proud to say I work at this organization		3.17	0.852
I am comfortable with the work I am expected to do.		3.17	0.858
I enjoy friendly working conditions in this organization.		3.18	0.888
I hardly leave the work place in a daily basis in this organization.		3.19	0.635
We take children to day care centres for baby nursing in the organization.		2.42	0.645
Average		3.00	0.755

SD = Standard deviation; Reliability Cronbach's Alpha = 0.845

Source: Research Data (2015)

4.3.5 Sustainable organizational competitiveness

The study also sought to get relevant data on the dependent variable. The results from analysis of data on mean and standard deviation showed that all the variable means were above 3.0 showing that all the responses were significant. The guarantee of job security in the organization was significant with the highest mean of (M=3.92; SD=0.391) which is an indication that the employees had a feel of good sense of future with the company. These findings concur with Armstrong and Spellman (1993) that

human capital is transferable across technologies and human resources has the potential to constitute a source of sustainable competitiveness of an organization.

Table 4.6: Descriptive Statistics for sustainable organizational competitiveness

Item	N = 258	Mean	S. D
I'm guaranteed of my Job security in this organization.		3.92	0.391
A lot of employees have left the Job in this organization recently.		3.71	0.554
I am comfortable to work in this organization in the next five to ten years		3.93	0.449
My organization rewards employees who design exemplary products.		3.88	0.395
I believe in the organization's business future prospects		3.87	0.453
My organization has been making the changes necessary to compete effectively.		3.72	0.552
I feel good about the future of the company.		3.79	0.492
Average		3.83	0.469

SD = Standard Deviation: Reliability; Cronbach's Alpha = 0.700.

Source: Research Data (2015)

4.4 Reliability and validity of the research constructs

Reliability is the extent to which a variable is consistent in what was supposed to measure (Hair *et al.*, 2006). The reliability of the items for the study was assessed by determining the items' Cronbach's Alpha coefficients. The generally acceptable level of Cronbach's alpha is above 0.70 and it may decrease to 0.60 in exploratory research (Hair *et al.*, 2006) and the desired minimum level of Cronbach's alpha for this study was 0.70. The scores of reliability coefficients for this study were calculated using SPSS software version 20.

The items for Human resource competencies were 13 with Cronbach's Alpha of 0.726. For human capital processes items were 19 with Cronbach's Alpha of 0.653 and human resource management practices on the other hand had 9 items with Cronbach's Alpha of 0.742 which was acceptable. The findings of Work arrangement items were 10 with Cronbach's Alpha of 0.845 and sustainable organizational

competitiveness items were 7 with a Cronbach's Alpha of 0.70. Therefore, the reliability test was passed as provided in table 4.7.

However, to provide construct validity evidence of self-reporting scales according to Fornell and Larcker (1981), convergent validity and discriminant validity was established where the AVE from the measures of a construct (dimension) was superior to the 0.5 threshold. All loadings had AVE greater than 0.5 demonstrating discriminant validity and convergent validity of factors. Admittedly along with individual observed variable reliability, the composite reliability was calculated using Fornell and Larcker's (1981) formula thus: $\text{Composite reliability} = (\sum Li)^2 / [(\sum Li)^2 + \sum \text{Var} (Ei)]$ where Li is standardized loadings and Ei is error variance calculated by 1- squared loadings of the observed variables, Table 4.9, 4.11, 4.13, 4.15 and 4.17

Table 4.7: Item Reliability Tests

Variable Description	Number of Items	Cronbach's Alpha
Human resource competencies	13	0.726
Human capital processes	19	0.653
Human resource management practices	9	0.742
Work arrangements	10	0.845
Sustainable organizational competitiveness	7	0.700
N= 258		

Source: Research Data (2015)

4.5 Factor Analysis for SOC, HRC, HCP, HRMP and WA

Factor analysis (FA) is a very significant instrument utilized in development, refinement, and evaluation of tests, scales and measures (Williams *et al.* 2010). The instrument reduces a large number of overlapping variables or factors into a smaller set. The study employed the Principal Components Analysis (PCA) so as to extract and understand the systematic interdependence among the set of variables measured

by the current study. It also determines the variable items that could be excluded from further analysis in the study. All the five composite scales were subsequently subjected to exploratory factor analysis using PCA extraction and rotated using Varimax rotation with Kaiser Normalization method. Only components with Eigen values greater than one (1) were extracted according to Kaiser (1960) and items with loadings more than 0.6 were explained (Nunnally, 1978).

According to Cepeda and Roldán (2004), the general rule of thumb is to accept those items with loadings over 0.7. However Nunnally, (1978) used factor loading not lower than 0.60 and Hair *et al.* (2010) used factor loading of 0.50 and above . In this study, the established cut-off point was 0.50. Subsequently, according to Bagozzi and Yi (1988) composite reliability (CR) should exceed 0.60; Table 4.9, 4.11, 4.13, 4.15 and 4.17.

4.5.1 Test of Scale Factorability

To establish the adequacy of data for factorability, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity were utilized. Consequently, the threshold according to Hair *et al.* (1995); Tabachnick and Fidell (2001) KMO of 0.50 is considered suitable for factor analysis. However, Netemeyer *et al.* (2003) stated that a KMO correlation above 0.60 - 0.70 is considered adequate for analyzing the factor analysis output. It is clear that values are usually considered to be acceptable if greater than 0.6 according to Hair *et al.* (2006) and this was the threshold adopted for this study. Bartlett's test of Sphericity as per (Bartlett, 1950) should provide a chi-square output that must be significant with indication that the

matrix was not an identity matrix and accordingly it should be significant ($p < 0.05$) for factor analysis to be suitable (Hair *et al.*, 2006; Tabachnick & Fidell, 2001).

There was a reasonable factorability of items which provided an adequate basis for proceeding to an empirical examination of adequacy for factor analysis on both overall basis and for each variable. Human Resource competencies (HRC) was measured using thirteen (13) items and from the results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.594) and Bartlett's test of sphericity (χ^2 (78) = 298.730, $p < 0.05$) indicated that data was accepted for factor analysis. Nineteen (19) items were used to measure Human Capital Processes (HCP) and the results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.704) and Bartlett's test of sphericity (χ^2 (171) = 790.494, $p < 0.05$) indicated that data was accepted for factor analysis.

To measure Human Resource Management practices (HRMP) Nine items were utilised and the results of Kaiser-Meyer-Okin measure of sampling adequacy test was (0.680) and Bartlett's test of sphericity (χ^2 (36) = 365.553, $p < 0.05$) indicated that the data was accepted for factor analysis. Ten items were used to measure work arrangement and results of Kaiser-Meyer-Okin measure of sampling adequacy test were (0.694) and Bartlett's test of sphericity (χ^2 (45) = 428.260, $p < 0.05$) indicated that data was accepted for factor analysis. Sustainable organizational competitiveness was measured using seven (7) items and results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.547) and Bartlett's test of sphericity (χ^2 (21) = 105.712, $p < 0.05$) indicated that data was accepted for factor analysis (Table 4.8).

Table 4.8: Test of Scale Factorability Adequacy

Scale (N=258)	HRC	HCP	HRMP	WA	SOC
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.594	0.706	0.680	0.694	0.547
Approx. Chi-Square	298.730	790.494	365.553	428.260	105.712
Bartlett's Test of Sphericity	0.000	0.000	0.001	0.000	0.000
Degrees of freedom	df=78	df=171	df=36	df=45	df=21

Notes: KMO Threshold > 0.5, Bartlett's Test of Sphericity significant $p < 0.05$, df = Degree of freedom, HRC = Human Resource Competency, HCP = Human Capital Processes, HRMP = Human Resource Management Practices, WA = Work arrangement and SOC = Sustainable organizational competitiveness.

Source: Survey data, (2015)

4.5.2 Factor Analysis for Human Resource Competencies

Factor analysis was applied on the data to bring inter-correlated variables together under more general, underlying variables. In total, 258 subjects were included in the analysis. The main goal was to reduce the dimensionality of the original space and to give an interpretation to the new space, spanned by a reduced number of new dimensions, which were supposed to underlie the old ones or to explain the variance in the observed variables in terms of underlying latent factors. Human Resources competency as shown in Table 4.9 was subjected to factor analysis and five components with Eigen values greater than 1 were extracted which cumulatively explained 55.279% of variance on Human Resource Competencies.

Table 4.9: Total Variance Explained of Human Resource Competencies

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.231	17.162	17.162	1.867	14.361	14.361
2	1.488	11.443	28.605	1.452	11.168	15.530
3	1.298	9.982	38.587	1.392	11.719	36.248
4	1.123	8.640	47.227	1.317	10.130	46.379
5	1.047	8.052	55.279	1.157	8.900	55.279
6	0.989	7.607	62.886			

Extraction Method: Principal Component Analysis.

Source: Research Data 2015

When rotated using Varimax with Kaiser Normalization revealed that three items of the scale: “I was provided with less orientation on the job after recruitment,” “I shape my own job description,” and “I came to this organization with experience from other organizations” were loaded on the first factor designated “Job Experience” explained 17.162% of the total variance. In addition, three items: “I was allocated a professional designation based on time invested in education and related training”. “The job I’m performing is related to my professional qualification”. “I was required to possess a professional designation before I was hired” were loaded on factor two labelled “professionalism” which explained 11.443% of the total variance while “I feel that my skills are valued and used,” and “I’m encouraged to improve my skills,” were loaded on the third factor labelled “Skills utilization” which explained 9.982% of the total variance.

The fourth factor was loaded with: “I was hired with my professional knowledge for a specified Job,” and “I’m provided with job rotation to enhance my skills” designated “Knowledge” which explained 8.640%. “I was assigned to my job based on education Qualification,” and “I have an up to date Job description from the organization,” were loaded on to the fifth factor labelled “Qualification” which explained 8.052% of the total variance. All the items had loadings and CR greater than threshold value of 0.50 (Table 4.10). It was therefore concluded that Human Resource Competencies can be measured by ten (10) items and were used in the subsequent multiple hierarchical regression analysis.

Table 4.10: Rotated Factor Loadings of Human Resource Competencies

Factors	Loadings	AVE	Variance explained
Human Resource competency	0.904*	0.661	55.279%
Job Experience			17.162%
I was provided with less orientation on the job after recruitment	0.724		
I shape my own job description	0.705		
I came to this organization with experience from other organizations	0.625		
professionalism			11.443%
I was allocated a professional designation based on time invested in education and related training	0.670		
The job I am performing is related to my professional qualification	0.623		
I was required to possess a professional designation before hired	0.509		
Skills Utilization			9.982%
I feel that my skills are valued and used	0.705		
I'm encouraged to improve my skills	0.657		
Knowledge			8.640%
I was hired with my professional knowledge for a specified Job	0.748		
I am provided with job rotation to enhance my skills,	0.566		
Qualification			8.052%
I was assigned to my job based on my education Qualification	0.736		
I have an upto date Job description from the organization	0.663		
Kaiser-Meyer-Olkin	0.594		
Bartlett's Test of Sphericity	0.000 (χ^2 (78) = 298.730)		
Loading* = Composite reliability			

Source: Survey Data (2015)

4.5.3 Factor Analysis of Human Capital Processes

Factor analysis was performed on Human Capital Processes as shown in Table 4.11

Seven components were extracted with Eigen values greater than 1 and cumulatively explained 59.993% of the total variance.

Table 4.11: Total Variance Explained of human capital processes

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.395	17.850	17.850	2.299	12.101	12.101
2	1.847	9.720	27.570	2.126	11.192	23.292
3	1.455	7.448	35.018	1.702	8.960	32.253
4	1.409	7.414	42.431	1.442	7.590	39.843
5	1.196	6.297	48.864	1.396	7.346	47.188
6	1.111	5.849	54.577	1.235	6.449	53.687
7	1.029	5.416	59.993	1.198	6.306	59.993
8	0.926	4.872	64.864			

Extraction Method: Principal Component Analysis.

Source: Research Data 2015

When rotated using Varimax with Kaiser Normalization revealed items: “we are encouraged to work in teams set out in the structure”. “In our organization Employees are allowed to accept responsibility for their own work”. “we are encouraged to participate in suggesting improvements in the organization”. “I learn as part of work than going for training were loaded on the first factor labelled “Employee participation” which accounted for 12.101% of the total variance.

The second factor “Learning Environment” was loaded with “The organization does less to develop employee’s competencies,” “The Company has done little to adopt and integrate new technology in its activities” and “Leadership is seen as low level management skill in our organization” which explained 11.192% of the total variance.

The third factor labelled Staff Development was loaded with “In our organization there is little effort put in developing managers” and “I am doing things the same way since I was recruited in this organization” accounting for 8.960% of the total variance.

Factor four was loaded with “I’m encouraged to be innovative in the way i perform

my duties,” and “we are encouraged to be creative and to think ‘outside the box’ was labelled “Innovation” accounting for 7.590% of the total variance.

Another factor loaded was the fifth designated, “Team building” with “strong employee oriented skills are a feature of how change is managed in our organization”. and “ The organization has effective teambuilding exercises” accounting for 7.346%. sixth factor was labelled “Training” with items “ I have been encouraged to further training related to my Job” and Managers in our organization are involved in Human Resource development” which accounted for 6.449% .

Finally, the seventh factor was labelled “Employee Induction” which accounted for 6.306% of the total variance was loaded with items; “we always have open communication with managers” and “I was inducted when I joined the organization with job related training”. The resultant seventeen items had loadings and CR greater than 0.50 cut-off and were used in subsequent multiple hierarchical regression analysis to measure Human Capital Processes. However, three items were deleted from subsequent multiple hierarchical regression analysis as shown in Table 4.12.

Table 4.12: Rotated Factor Loadings of Human Capital Processes

Factors	Loadings	AV E	Variance explained
Human Capital Processes	0.938*	0.716	59.993%
Employee participation			12.101%
We are encouraged to work in Teams set out in the structure.	0.740		
In our organization are allowed to accept responsibility for our work	0.736		
We are encouraged to participate in suggesting improvements in the organization	0.678		
I Learn as part of work more than going for training in our organization.	0.524		
Learning Environment			11.192%
The organization does less to develop employee's competencies.	0.816		
The company has done little to adopt and integrate new technology in its activities.	0.781		
Leadership is seen as low level management skill in our organization.	0.663		
Staff Development			8.960%
In our organization there is little effort put into developing mangers.	0.788		
I'm encouraged to improve my skills	0.748		
Innovation			7.590%
We are encouraged to be innovative in performing our duties	0.726		
We are encouraged to be creative, or to think 'outside the box'.	0.549		
Team building			7.346%;
People oriented skills are a feature of change in our organization	0.738		
The organization has effective team building exercises	0.664		
Training			6.449%
I have been encouraged to further my training related to my job.	0.796		
Managers in our organization are involved in HR development	0.509		
Employee Induction			6.306%
We always have open communications with managers.	0.632		
I was inducted when I joint with job-related training	0.545		
Kaiser-Meyer-Olkin	0.706		
Bartlett's Test of Sphericity	0.000 (χ^2 (171) = 790.494)		

Notes: Loading* = Composite reliability

Source: Survey Data (2015)

4.5.4 Factor Analysis on Human Resource Management Practices

Factor analysis was performed on Human Resource Management Practices as shown in Table 4.13. Three components were extracted with Eigen values greater than 1 and cumulatively explained 55.737 % of the total variance.

Table 4.13: Total Variance Explained of Human Resource Management Practices

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.638	29.314	29.314	1.959	21.771	21.771
2	1.202	13.352	42.665	1.713	19.039	40.810
3	1.176	13.072	55.737	1.343	14.928	55.737
4	0.961	10.676	66.413			

Extraction Method: Principal Component Analysis.

Source: Research Data (2015)

When rotated using Varimax with Kaiser Normalization revealed items: “We are rarely rewarded for outstanding performance,” “There is no connection between my work and the company’s strategic objectives” and “Few employees in this organization are involved in most of the decision making” were loaded on the first factor labelled “Employee participation” which accounted for 21.771% of the total variance. The second factor labelled “Motivation” was loaded with “We work through self-managing teams,” “Managing the complexity of change is a critical management function in our organization” “We are all involved in decision making” and “Employee needs are recognised as much as their skills in our organization.” which explained 19.039% of the total variance.

Third factor labelled ‘performance Appraisal’ was loaded with “My performance appraisal is done regularly” and “We are rewarded in this organization based on some measurable production” accounting for 14.928% of the total variance. The resultant

Nine items had loadings and CR greater than 0.50 cut-off and were used in subsequent multiple hierarchical regression analysis to measure Human Resource Management Practices. None of the items were deleted from the subsequent multiple hierarchical regression analysis as shown in Table 4.14.

Table 4.14: Rotated Factor Loadings of Human Resource Management Practices

Factors	Loadings	AV E	Variance explained
Human Resource Management Practices	0.882*	0.67 0	55.737%
Employee participation			21.771%
No connection between my work and the company's strategic objectives	0.798		
Few employees in this organization are involved in most of the decision making	0.761		
Few employees in this organization are involved in most of the decision making	0.680		
Motivation			19.039%
We work through self-managing teams	0.689		
Managing the complexity of change is a critical management function in our organization	0.686		
We are all involved in decision making	0.596		
Employee needs are recognised as much as their skills in our organization	0.533		
Performance Appraisal			14.928%
My performance appraisal is done regularly	0.788		
We are rewarded in this organization based on some measurable production.	0.504		
Kaiser-Meyer-Olkin	0.680		
Bartlett's Test of Sphericity	0.000 (χ^2 (36) = 365.553)		

Notes: Loading* = Composite reliability

Source: Survey Data (2015)

4.5.5 Factor Analysis of Work Arrangement

Factor analysis was performed on Human Resource Management Practices items as shown in Table 4.15. Three components were extracted with Eigen values greater than 1 and cumulatively explained 55.737 % of the total variance.

Table 4.15: Total Variance Explained of Work Arrangement

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.785	27.852	27.852	1.863	18.626	18.626
2	1.387	13.868	41.720	1.618	16.176	34.802
3	1.142	11.417	53.137	1.513	15.131	49.933
4	1.102	11.019	64.156	1.422	14.223	64.156
5	0.875	8.750	72.906			

Notes: Extraction Method: Principal Component Analysis.

Source: Research Data 2015

When rotated using Varimax with Kaiser Normalization revealed items: “I am comfortable with the work I am expected to do”. “I hardly leave the work place in a daily basis in this organization”. “I am proud to say I work in this organization” were loaded on the first factor labelled “Standard work” which accounted for 18.626% of the total variance. The second factor labelled “condensed week” was loaded with “This organization allows us to work for less than six days in a week.” and “I enjoy friendly working conditions in this organization.” which explained 16.176% of the total variance.

Third factor labelled ‘Flexitime Arrangement’ was loaded with “We are allowed to work on flexible time provided we complete the required hours per day.” and “I work on Part time in this organization,” accounting for 15.131% of the total variance. The fourth factor was loaded with “We take children to day care centres for baby nursing in the organization,” accounted for 14.223% labelled ‘Child care’. The resultant eight items had loadings and CR greater than 0.50 cut-off and were used in subsequent multiple hierarchical regression analysis to measure Work Arrangements. Two of the items which included “My work gives me a sense of accomplishment.” And “I like

the kind of work arrangement we have in this organization” were deleted from the subsequent multiple hierarchical regression analysis as shown in Table 4.16.

Table 4.16: Rotated Factor Loadings of Work Arrangements

Factors	Loadings	AVE	Variance explained
Work Arrangements	0.903*	0.730	64.156%
Standard Work			18.626%
I am comfortable with the work I am expected to do	0.782		
I hardly leave the work place in a daily basis in this organization	0.760		
I am proud to say I work in this organization	0.530		
Condensed week			16.176%
This organization allows us to work for less than six days a week	0.843		
I enjoy friendly working conditions in this organization.	0.622		
Flexitime Arrangement			15.131%
We are allowed to work flexibly provided we complete the required hours per day	0.825		
I work on Part time in this organization,” accounting	0.655		
Child care			14.223%
We take children to care centres for nursing in the organization	0.823		
Kaiser-Meyer-Olkin	0.694		
Bartlett's Test of Sphericity	0.000 (χ^2 (45) = 428.260)		

Notes: Loading* = Composite reliability

Source: Survey Data (2015)

4.5.6 Factor Analysis of Sustainable organizational competitiveness (SOC)

Sustainable organizational competitiveness scale was subjected to factor analysis and three components with Eigen values greater than 1 were extracted which cumulatively explained 55.351% of the total variance as shown in Table 4.17.

Table 4.17: Total Variance Explained of Sustainable organizational competitiveness

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.705	24.360	24.360	1.467	20.960	20.960
2	1.232	17.599	41.959	1.424	20.349	41.309
3	1.007	15.393	57.351	1.123	16.042	57.351
4	0.914	13.062	70.413			

Extraction Method: Principal Component Analysis

Source: Research Data (2015)

When rotated using Varimax with Kaiser Normalization, three items were loaded on the first factor labelled “Job security” which explained 24.360% of the total variance. The items included: “I believe in the organization’s business future prospects”. “I’m guaranteed of my Job security in this organization”. “I feel good about the future of the company,” “Factor two labelled ‘Product Quality’ was loaded with two items which cumulatively explained 17.599% of the total variance and the items included: “My organization has been making the changes necessary to compete effectively,” “My organization rewards employees who design exemplary products”.

The third factor labelled ‘Employee Retention’ accounted for 15.393% loaded with items. “I am comfortable to work in this organization in the next five to ten years” “A lot of people have left the Job in my organization recently” It meant that sustainable organizational competitiveness was measured by seven items with CR greater than 0.50 cut-off value were used in the subsequent multiple hierarchical regression analysis (Table 4.18).

Table 4.18: Rotated Factor Loadings of Sustainable organizational competitiveness

Factors	Loadings	AVE	Variance explained
Sustainable organizational competitiveness	0.878*	0.710	57.351%
Job security			24.360%
I believe in the organization's business future prospects	0.802		
I'm guaranteed of my Job security in this organization.	0.615		
I feel good about the future of the company.	0.565		
Product Quality			17.599%
My organization rewards employees who design exemplary products.	0.775		
My organization has been making the changes necessary to compete effectively	0.762		
Employee Retention			15.393%
I am comfortable to work in this organization for over five years	0.778		
Alot of people have left the Job in my organization recently	0.678		
Kaiser-Meyer-Olkin	0.547		
Bartlett's Test of Sphericity	0.000 (χ^2 (21) =105.712)		
Loading* = Composite reliability			

Source: Research Data (2015)

4.6 Test of Regression Assumptions

Before testing regression assumption, univariate and multivariate assessment of outliers was done across all the cases. All the cases had Mahalanobis D^2 scores less than critical value of chi-square (χ^2) 111.969 obtained from the table. Further, subjection to probability for the Mahalanobis D^2 all had values more than 0.001 confirming that there was no outlier. A value of D^2 with low p value (< 0.001) was used as the criteria to reject the assumption that the case came from the same population as the rest (Hair *et al.*, 1998). Following the assessment of outliers, the data set was tested for fundamental regression assumptions.

In a similar breadth, Hair *et al.* (1998) stated that meeting the assumptions of regression analysis is essential to ensure that the results obtained were actually representative of the sample so as to obtain the best results possible. The key assumptions tested were normality, linearity, multi collinearity and homoscedasticity (Hair *et al.*, 1998; Ghozali, 2005). After meeting the key assumptions, the study confidently used the existing sample data to test the hypotheses as mentioned.

4.6.1 Level of Measurement

Multiple Hierarchical regressions require that the dependent variable be metric and the independent variables be metric or dichotomous. For this study, sustainable organizational competitiveness, which was taken as dependent variable, was ordinal, satisfying the metric level of measurement requirement for the dependent variable. Human Resource Capability variables and Work arrangement were ordinal, satisfying the metric or dichotomous level of measurement requirement for independent variables and the data was standardized. The ratio of participants to independent variables should be at least 5:1 and ideally 20:1. If the stepwise method is used, the ratio should be 40:1. This is due to the possibility that with small sample sizes, this method can produce results which do not generalize to other samples (Tabachnick & Fidell, 1996). The ratio obtained in this study was 86: 1 which was above 40:1.

4.6.2 Assumption of Normality

Normality of the distribution was assessed using statistical method. Kolmogorov-Smirnov test and Shapiro Wilk was used to test normality of the data because it can handle sample sizes as large as 2000. According to Ghozali (2005), normality can be detected by looking at the p-value of Kolmogorov-Smirnov test. If the p-value is

greater than the 5% significance level, the residuals are considered as normally distributed. If it is below 0.05, the data significantly deviate from a normal distribution. The test statistics of the five variables are shown in the Table where Kolmogorov-Smirnov and Shapiro Wilk test performed showed that the p-values range from 0.123 - 0.882 which were greater than 0.05. The normality assumption of the regression model was therefore met (Table 4.19).

Table 4.19: Test of Normality of Independent, Moderator and Dependent Variables

Constructs	Kolmogorov-Smirnov (KS) test			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Human resource competencies	0.144	258	0.200	0.935	258	0.133
Human capital processes	0.131	258	0.194	0.969	258	0.882
Human resource management practices	0.097	258	0.200	0.972	258	0.692
Work arrangement	0.137	258	0.200	0.961	258	0.434
Sustainable organizational competitiveness	0.155	258	0.123	0.959	258	0.394

Notes: Lilliefors Significance Correction, KMO and Shapiro-Wilk significant at $p > 0.05$

Source: Research Data (2015)

4.6.3 Linearity

This implies that the mean values of the outcome variable for each increment of the predictor(s) lie along a straight line. Correlation analysis can be used to assess association between predictor and criterion. Table 4.20 shows that there is a positive association among the variables and the values are not greater than 0.9. According to Tabachnick and Fidell (1996) independent variables should not be very highly correlated ($r > 0.90$) or perfectly correlated ($r = 1$) to avoid multi-collinearity which in this study showed that multi-collinearity was not a problem. It meant that sustainable organizational competitiveness changed by a constant amount every time independent

variables: Human Resource competency, Human Capital Processes, Human Resource Management Practices and their interaction with Work Arrangements increased by one unit when all other factors were held constant.

4.6.4 Multi-collinearity

This term is used to describe the inter-correlations or inter-associations among the independent variables. Thus Multi-collinearity occurs when more than two independent variables are highly correlated (Cooper & Schindler, 2006). Multi-collinearity can be detected with the help of tolerance and its reciprocal variance inflation factor (VIF). Tolerance should be above 0.20 (Menard, 1995) and this was the cut-off value for this study. It is clear that serious multi-collinearity occurs when the value of tolerance is smaller than 0.10 and the value of VIF is greater than 10 (Ghozali, 2005).

Hence, tolerance statistics were used to estimate whether some of the independent variables had very high correlations with other independent variables to form multi-collinearity. This means tolerance is the proportion of an independent variable's variance not accounted for by the other independent variables. High tolerance values indicated that there was no problem of multi collinearity with a maximum possible value being 1. Inverse of tolerance represents Variance Inflation Factor (VIF) and high values indicate multi-collinearity.

If there was perfect collinearity among predictors, it would have been impossible to obtain unique estimates of the regression coefficients because there were an infinite number of combinations of coefficients that would work equally well. According to Kennedy (1992), most researchers usually consider values below 0.1 to indicate

serious problems of Multi-collinearity. Moreover, Menard (1995) suggested that values below 0.2 are worthy of concern and this was the adopted threshold for the study. Therefore, predictor variables had no strong linear relationship. All variables had tolerance values of above 0.2 and VIF of less than 10. This indicated that multi-collinearity among variables was not a problem and the proposed model in chapter two was valid. Admittedly, all the variables used in multiple hierarchical regressions had the tolerance values of above 0.20 showing Multi-collinearity was not a problem in this study as indicated in Table 4.20.

Table 4.20: Multi-collinearity statistics for HRC, HCP, WA and OC

	Correlations		Collinearity Statistics		
	Zero- order	Partial	Part	Tolerance	VIF
ZHRC	0.689	0.237	0.084	0.475	2.105
ZHCP	0.722	0.194	0.068	0.406	2.461
Z HRMP	0.910	0.776	0.425	0.398	2.516
ZWA	0.559	0.235	0.083	0.712	1.465
ZHRCWA	0.331	0.397	0.149	0.508	1.969
ZHCPWA	0.186	0.194	0.068	0.514	1.947
ZHRMPW	0.238	0.423	0.146	0.359	2.789

Notes: a. Dependent Variable: sustainable organizational competitiveness.

VIF = Variance Inflation factor.

Source: Research Data (2015)

4.6.5 Homoscedasticity

At each level of the predictor variable(s), the variance of the residual terms should be constant to attain homoscedasticity. The value of the Durbin-Watson statistic used to test independence and variance ranges from 0 to 4 and as a rule of thumb, the residuals are not correlated if the Durbin-Watson statistic is approximately 2 and an acceptable range is 1.50-2.50 (Hair *et al.*, 2006). However, the acceptable values in Durbin and Watson's (1951) original paper as a very conservative rule of thumb, values less than 1 or greater than 3 are definitely cause for concern. The Durbin-

Watson statistic for this study regression was 1.842 as shown in Table 4.22. This falls within the acceptable range indicating that the residuals were not correlated.

4.7 Correlation Analysis of Dependent, Independent and Moderator Variables

Correlation analysis was carried out to test the theoretical proposition regarding relationships among the variables. The correlation matrix indicated that there was a positive significant correlation between Human Resource Competencies and sustainable organizational competitiveness ($r = 0.689$, $P < 0.01$). This means that there is a strong significant relationship between human resource competencies and sustainable organizational competitiveness. Human resource competencies positively predict sustainable organizational competitiveness. The correlation of Human Capital Processes and sustainable organizational competitiveness was also positively significant ($r = 0.722$, $P < 0.01$).

Human capital process like learning, innovation and teamwork do positively predict sustainable organizational competitiveness. The relationship is strong and positive; meaning enhancing human capital processes in organizations would lead to positive achievement in competitiveness. The correlation of Human Resource Management Practices was positively significant ($r = 0.910$, $P < 0.01$) and the correlation of moderator Work arrangement and sustainable organizational competitiveness was also positively significant ($r = 0.559$, $P < 0.01$) as shown in Table 4.21. It therefore implies that the independent variables together with the moderator positively influence sustainable organizational competitiveness.

Table 4.21: Correlation of Dependent, Independent and Moderator Variables

Variables	Y	X ₁	X ₂	X ₃	M
Sustainable organizational competitiveness (Y)	1				
Human Resource competency (X ₁)	0.689**	1			
Human Capital processes (X ₂)	0.722**	0.682**	1		
Human Resource management practices (X ₃)	0.910**	0.645**	0.700**	1	
Work Arrangement (M)	0.559**	0.429**	0.445**	0.516**	1

Notes: ** Correlation is significant at 0.01 level, * Correlation is significant at 0.05 level

Source: Research Data (2015)

4.8 Multiple Hierarchical Regression Analysis

At this point the stepwise analysis included multiple and hierarchical regression models to test the hypotheses. To test whether work arrangement moderated HRC, HCP, and HRMP on SOC the interactions were tested. The study followed the approach given by Aiken and West (1991) to standardize all the predictor variables to reduce multi-collinearity problem that arises when a moderator variable is computed as a product of two predictor variables. To avoid multi-collinearity risk created by generating a new variable through multiplying two existing variables, interacted variables were converted to Z scores with mean of zero and standard deviation of one.

The interaction variables were therefore created by multiplying the standardized variables together. In the Five-steps, step 1 multiple regression was carried out and the three independent variables were introduced and hypothesized as follows: there is no significant effect of Human Resource Competencies on sustainable organizational competitiveness; there is no significant effect of Human capital Processes on sustainable organizational competitiveness and there is no significant effect of Human

Resource Management Practices on sustainable organizational competitiveness respectively.

In step 2, work arrangement was introduced and was hypothesized as having no significant effect on sustainable organizational competitiveness (H_{O4a}). Step 3, 4 and 5 interactions of Work arrangement and the three variables of Human Resource Capabilities were introduced and explained as follows. First, work arrangement was hypothesized not to moderate effect of Human Resource competencies on sustainable organizational competitiveness (sub-hypothesis H_{O4b}). Second, Work arrangement was hypothesized not to moderate effect of Human capital Processes on sustainable organizational competitiveness (sub-hypothesis H_{O4c}). Lastly, work arrangement was hypothesized not to moderate effect of Human Resource Management practices on sustainable organizational competitiveness (sub-hypothesis H_{O4d}).

4.8.1 Model Summary of HRC¹ Predictors and WA Interactions on OC

From the model summary, results of HRC¹ Predictors and WA Interactions on SOC are shown. The findings' independent variables explained 85.0% ($R^2 = 0.850$) of the variance on sustainable organizational competitiveness which was statistically highly significant. This indicated that the three independent variables predicted sustainable organizational competitiveness. Introduced work arrangement on the other hand in model 2 explained only 85.7% ($R^2 = 0.857$) of the variance on sustainable organizational competitiveness which contributed an addition of 0.6%. This indicates an overlap by the independent variables that constitute human resources capabilities and work arrangement, which is a moderator on the prediction of sustainable organizational competitiveness. It therefore implies that there is some association that

the human resource capabilities and work arrangement have in predicting sustainable organizational competitiveness.

As indicated in model 3 interaction of Z score work arrangement *Z score Human Resource Competencies explained 87.6% ($R^2 = 0.876$) of the variance on sustainable organizational competitiveness which resulted in R^2 change of (2.0%) which was statistically significant. In practice, Human resource competencies interact with work arrangements that are favourable to the employee's interest and behaviour is affected positively enhancing employee commitment and loyalty to the organization. This would in turn result in improved product quality hence customer satisfaction. When customers are satisfied with organizations' products repeat purchase would be witnessed hence competitiveness due to customer loyalty to the organization.

In addition interaction of Z score work arrangement * Z score Human Capital processes explained 88.1% ($R^2 = 0.881$) of the variance in sustainable organizational competitiveness. This contributed an addition R^2 of (0.5%) which was statistically significant as shown in model 4. The human capital processes applied by organizations may be antagonistic to work arrangements that are appealing and favourable to employees leading to insignificant results in their contribution to sustainable organizational competitiveness. However, interaction of Z score work arrangement *Z score Human resource Management practices as shown in model 5 explained 90.2% ($R^2 = 0.902$) of the variance in sustainable organizational competitiveness resulting in R^2 change of (2.1%) which was highly statistically significant. Human resource management practices, which include staff involvement, reward management and performance appraisal are practices that go well with generation y employees. Therefore when interacted with work arrangements that

become favourable to the said employees would positively moderate the effect on sustainable organizational competitiveness.

Durbin-Watson statistics was used to test the presence of serial correlation among the residuals, the assumption of independence of errors, which required that the residuals or errors in prediction do not follow a pattern from case to case. The value ranges from 0 to 4 and as a rule of thumb, the residuals are not correlated if the Durbin-Watson statistic is approximately 2 and an acceptable range is 1.50-2.50 (Hair *et al.*, 1998). Value greater than 2 indicates a negative correlation between adjacent residuals; whereas a value below 2 indicates a positive correlation. It also depends upon the number of predictors in the model and the number of observations. The Durbin-Watson statistic for this regression was 1.842 as shown in Table 4.22. This falls within the acceptable range, which indicated that the residuals were positive and not correlated.

Table 4.22: Model Summary of HRC¹ Predictors and WA Interactions on OC

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	0.922 ^a	0.850	0.849	0.389	0.850	480.825	3	254	0.000	
2	0.926 ^b	0.857	0.854	0.382	0.006	11.241	1	253	0.001	
3	0.936 ^c	0.876	0.874	0.355	0.020	39.875	1	252	0.000	
4	0.939 ^d	0.881	0.878	0.349	0.005	9.804	1	251	0.002	
5	0.950 ^e	0.902	0.899	0.317	0.021	54.583	1	250	0.000	1.842

Source: Survey Data (2015)

4.8.2 ANOVA Model of HRC Predictors and WA Interactions on SOC

The results shown in Table 4.23 as indicated by the model showed good model fit as illustrated by overall test of significance with F-test values of 480.825, 377.968, 356.811, 309.365 and 329.576 respectively with p value $0.000 < 0.05$ (level of

significance) were statistically highly significant. In other words, HRC, HCP, HRMP and their interaction with work arrangement were statistically significant predictors of SOC. The moderator WA was not related to either the predictor or the criterion variable rather it interacted with the predictor variables to modify the form of the relationship between predictors and criterion.

Work Arrangement created an enhancing effect of HRC and HRMP while antagonistic effect of HCP. Thus, the model was fit to predict sustainable organizational competitiveness using Human resource competencies, Human capital processes, Human resource management practices and the moderator work arrangements. ANOVA assessed whether the model overall results were significantly good degree of prediction of the outcome variable and it was clear that multiple hierarchical regression models of HRC¹, WA and their interaction resulted in significantly better prediction of SOC. Therefore, extending the argument was important to fit this statistical model to a set of actual collected data and how it fitted. From the results, it became clear that the model fitted the data well. It provided not only a statistical test of the model's ability to predict the SOC, but also the value of R or the corresponding R² and the adjusted R² which indicated that the model could be used to generalize the findings.

Table 4.23: ANOVA Model of HRC¹ Predictors and WA Interactions on SOC

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	218.54	3	72.840	480.825	0.000 ^b
	Residual	38.479	254	0.151		
	Total	257	257			
2	Regression	220.158	4	55.040	377.968	0.000 ^c
	Residual	36.842	253	0.146		
	Total	257	257			
3	Regression	225.191	5	45.038	356.811	0.000 ^d
	Residual	31.809	252	0.126		
	Total	257	257			
4	Regression	226.387	6	37.731	309.365	0.000 ^e
	Residual	30.613	251	0.122		
	Total	257	257			
5	Regression	231.873	7	33.125	329.576	0.000 ^f
	Residual	25.127	250	0.101		
	Total	257	257			

Source: Research Data (2015)

4.8.3 Multiple Regression Analysis of HRC¹ on Sustainable organizational competitiveness

In the first step, the effect of Human resource competencies, Human capital processes and Human resource management practices on sustainable organizational competitiveness was established. The multiple regression results presented in Table 4.24 indicated that Human resource competencies ($\beta = 0.135$, $t = 3.848$, $P < 0.05$), Human capital processes ($\beta = 0.105$, $t = 2.797$, $P < 0.05$) and Human resource management practices ($\beta = 0.749$, $t = 20.872$, $P < 0.05$) were positive and statistically highly significant predictors of sustainable organizational competitiveness. In this study, the results met the criteria of introducing a moderator. Since moderator variable can be considered when the relationship between a predictor variable and a dependent variable is strong, but most often it is considered when there is an unexpectedly inconsistent relationship between a predictor and a dependent variable (Holmbeck,

1997). The three variables had tolerance values of above 0.2 and VIF of less than 10 therefore multi-collinearity was not a problem.

Table 4.24: Regression Coefficients of Independent Variables on Sustainable organizational competitiveness

Model 1	Unstandardized		Standardized	t	Sig.
	Coefficients				
	B	Std. Error	Beta		
Constant	0.15	0.024		0.000	1.000
ZHRC	0.135	0.035	0.135	3.848	0.000
ZHCP	0.105	0.38	0.105	2.797	0.006
Z HRMP	0.749	0.36	0.749	20.872	0.000

Dependent Variable: Sustainable organizational competitiveness.

Notes: Dependent Variable = Sustainable organizational competitiveness, ZHRC = Zscore Human resource competencies, ZHCP = Zscore Human Capital Processes and ZHRMP = Zscore Human Resource Management Practices.

Source: Research Data (2015)

4.8.4 Regression Analysis of Independent Variables and Interaction with Work Arrangement on Sustainable organizational competitiveness

Estimates of standardized regression coefficients offered an indication of the predictive ability of the independent variables. Standardized regression coefficients range from +1 to -1 and the higher the regression coefficient (in absolute terms), the better the prediction of the dependent variable. It therefore, follows logically that if a variable significantly predicts an outcome, then it should have a β value significantly different from zero. In this study stepwise regression analysis model: Sustainable organizational competitiveness = $\alpha + \beta_1 \text{ZHRC} + \beta_2 \text{ZHCP} + \beta_3 \text{ZHRMP} + \beta_4 \text{ZWA} + \beta_5 \text{ZWA} * \text{HRC} + \beta_6 \text{ZWA} * \text{HCP} + \beta_7 \text{ZWA} * \text{HRMP} + \epsilon$ had standardized β values significantly different from zero as shown in Table 4.25, 4.26, 4.27, and 4.28.

Therefore, the model can significantly be used to predict sustainable organizational competitiveness.

4.8.5 Hierarchical Regression Results of Work Arrangement on Sustainable organizational competitiveness

Hierarchical regression results presented in Table 4.25, indicated step two of the hierarchical regression where Work arrangement ($\beta = 0.095$, $t = 3.353$, $P < 0.05$) was found to be positive and statistically significant predictor of sustainable organizational competitiveness. This indicated that work arrangement at this stage was a moderator as it influenced the relationship without interacting with the predictor variables and was significant. According to Wright *et al.* (2001) when a variable (X4) is introduced to a regression analysis and found to have a significant relationship with dependent variable (sustainable organizational competitiveness), the moderator hypothesis is supported. Conversely, if the interaction term was found to be insignificant, the moderator hypothesis would not be supported (Wright *et al.*, 2001). It should be noted that moderator variables are always at the same level as predictor variables in regard to their roles as causal variables. This means that in any model they are antecedent or exogenous to dependent variables. The moderator variable had tolerance value of above 0.2 and VIF of less than 10 therefore, multi collinearity was not a problem.

Table 4.25: Regression Coefficients of work arrangement on Sustainable organizational competitiveness

Model 2	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	0.15	0.024		0.000	1.000
ZHRC	0.135	0.035	0.135	3.848	0.000
ZHCP	0.105	0.38	0.105	2.797	0.006
Z HRMP	0.749	0.36	0.749	20.872	0.000
ZWA	0.095	0.028	0.095	3.535	0.015**

Notes: Dependent Variable: Sustainable organizational competitiveness.

**significant at $p < 0.05$

Source: Research Data (2015)

4.8.6 Hierarchical Regression Interaction Results of work Arrangement and Human resource Competencies

The interaction of work arrangement and human resource competencies was entered, the hierarchical regression coefficient of interaction ($\beta = 0.122$, $t = 6.315$, $P < 0.05$) was positive and statistically highly significant as shown in Table 4.26. This confirmed that work arrangement moderated the effect of Human Resource Competencies on sustainable organizational competitiveness. This implies that competencies like knowledge, skills and abilities are being enhanced. It is also necessary to undertake arrangements to promote work-life balance amongst the employees. However age of employees also has some role to play (40.3%) aged between 26-33 years and only 5% aged above 50 years of age. The two variables had tolerance values of above 0.2 and VIF of less than 10 therefore multi-collinearity was not a problem.

Table 4.26: Hierarchical Regression Coefficients of work Arrangement and Human resource Competencies

Model 3	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
Constant	0.052	0.124			
ZHRC	0.120	0.032	0.120	3.725	0.000
ZHCP	0.118	0.035	0.118	3.424	0.001
Z HRMP	0.665	0.035	0.665	18.973	0.000
ZWA	0.099	0.026	0.099	3.785	0.000
ZHRCWA	0.122	0.019	0.122	6.315	0.000

Notes: Dependent Variable: Sustainable organizational competitiveness.

Source: Research Data (2015)

4.8.7 Hierarchical Regression Interaction Results of work Arrangement and Human Capital Processes

In this step the interaction of work arrangement and Human Capital processes was entered. Hierarchical regression coefficient of the interaction work arrangement and Human Capital processes ($\beta = 0.080$, $t = 3.131$, $P < 0.05$) was positive and statistically highly significant as shown in Table 4.27. This confirmed that work arrangement moderated the effect of Human Capital Processes on sustainable organizational competitiveness. This shows that work arrangement is a critical aspect of sustainable organizational competitiveness, therefore other than training, innovation and teamwork amongst the staff in an organization work arrangement is crucial as it moderates the relationship.

Table 4.27: Regression Coefficients of work Arrangement and Human Capital Processes

Model 4	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
Constant	0.039	0.024			
ZHRC	0.122	0.032	0.122	3.859	0.000
ZHCP	0.107	0.035	0.107	3.131	0.002
Z HRMP	0.673	0.035	0.673	19.490	0.000
ZWA	0.099	0.026	0.099	3.832	0.000
ZHRCWA	0.176	0.026	0.176	6.853	0.000
ZHCPWA	0.080	0.026	0.080	3.131	0.002

Notes: Dependent Variable: sustainable organizational competitiveness.

Source: Research Data (2015)

4.8.8 Hierarchical Regression Interaction Results of work arrangement and Human Resource Management Practices

In the fifth step the interaction of work arrangement and Human Resources Management practices was entered. Hierarchical regression coefficient of the interaction between work arrangement and Human resource management practices ($\beta = -0.214$, $t = -7.388$, $P < 0.05$) was negative and statistically highly significant. This confirmed that work arrangement moderated the effect of Human resources Management practices on sustainable organizational competitiveness. It is quite imperative in HRM to consider the work-life balance of employees so as to achieve sustainable organizational competitiveness. Apart from HRM practices like performance appraisal, reward management and staff involvement, employees also look to activities that touch on their life outside the work place. Employees in organizations other than being staff of firms have other roles they play in life and this should be considered by managers of organizations. Hence, the need to consider

work arrangement as it has some effect on the output resulting from HRMP on sustainable organizational competitiveness (Table 4.28).

Table 4.28: Regression Coefficients of work arrangement on Human Resource Management practices

Model 5	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Constant	0.002	0.022			
ZHRC	0.151	0.029	0.151	5.215	0.000
ZHCP	0.126	0.031	0.126	4.038	0.000
Z HRMP	0.697	0.037	0.697	22.116	0.015
ZWA	0.059	0.024	0.059	2.441	0.000
ZHRCWA	0.234	0.025	0.234	9.526	0.000
ZHCPWA	0.026	0.027	0.026	0.960	0.338
ZHRMPWA	-0.214	0.029	- 0.214	-7.388	0.000

Notes: Dependent Variable: Sustainable organizational competitiveness.

Source: Research Data (2015)

Table 4.29: A summary of Tested hypothesis

Null hypothesis	Results	Conclusion
H ₀ 1: There is no significant effect of human resource competencies on Sustainable organizational competitiveness	Significant effect P <0.05 (p=0.000)	Null hypothesis rejected
H ₀ 2: There is no significant effect of human capital processes on sustainable organizational competitiveness	Significant effect P <0.05(p=0.006)	Null hypothesis rejected
H ₀ 3: There is no significant effect of human resource management practices on sustainable organizational competitiveness	Significant effect P <0.05 (p=0.000)	Null hypothesis rejected
H ₀ 4a: Work arrangements do not moderate the relationship between human resource competencies and Sustainable organizational competitiveness	Significant effect P <0.05(p= 0.000)	Null hypothesis rejected
H ₀ 4b: Work arrangements do not moderate the relationship between human capital processes and sustainable organizational competitiveness	Significant effect P <0.05(p=0.002)	Null hypothesis rejected
H ₀ 4c: Work arrangements do not moderate the relationship between human resource management practices and Sustainable organizational competitiveness	Significant effect but negatively related P <0.05(p=0.000)	Null hypothesis rejected
H ₀ 4d: Work arrangements do not moderate the relationship between human resource capabilities and Sustainable organizational competitiveness	Significant effect P <0.05 (p=0.000)	Null hypothesis rejected

4.9 Discussions of Findings

A number of sequential hierarchical multiple regression models were employed to test the proposed hypotheses and to analyze the relationships. Hypotheses of the study that had been formulated were tested at 5% level of significance. Dunn (2001) argued that the beta coefficients indicate the slope in the model that relates independent variables to the dependent variables. The size of the beta coefficient indicates the magnitude in influencing the dependent variable whereas t-test was used to compare regression coefficient Beta (β) with 0. Likewise, standardized coefficients were used to explain the hypotheses tested. Discussions were based on both literature and empirical results of hypotheses presented in chapter one and it provided possible explanation as to why hypotheses were supported or not supported.

4.9.1 Effect of Human Resource Competencies on Sustainable organizational competitiveness

It was hypothesised that “there is no significant effect of Human Resource Competencies on sustainable organizational Competencies.” (H_{01}). In line with the expectation of the study, findings indicated that Human Resource competencies had a positive and statistically highly significant effect on sustainable organizational competitiveness ($\beta = 0.135, p < 0.05$). This therefore implies that knowledge, skills and abilities have a bearing on sustainable organizational competitiveness of organizations.

This is in line with the argument according to Khandekar *et al.* (2005) organizations survive on the employee’s knowledge and understanding to compete effectively in the market. If this is realized then the organization can gain sustainable competitiveness.

Competencies are found in the knowledge, skills and abilities of organizational members. Further, Hitt, Bierman, Uhlenbruck & Shimizu (2006) found that service firms that internationalize without strong Human Resource Competencies are likely to be at a competitive disadvantage. Thus to gain competitiveness it is imperative for organizations to enhance HR competencies. Ability develops from an individual's natural aptitudes and subsequent learning opportunities. Aptitudes are relatively stable capacities for performing some activity effectively.

This can be accomplished either by careful selection of people or by a combination of selection and training. Organizations seem not to give sufficient attention to this part as is shown by the respondent's mean of 2.73 which was below the average mean of 3.0 for induction of staff on reporting. This item also is supported by high factor loadings during factor analysis (0.724). From a theoretical perspective, Campbell *et al.* (1990) described the performance components as a function of three determinants, declarative knowledge, procedural knowledge, skills and motivation. Declarative knowledge includes knowledge about facts, principles, goals, and the self. Therefore, organizations achieve sustainable competitiveness by ensuring that employees get the necessary training. Value creation is very critical for human resources to be rare (Barney 2002). However, Mizik and Jacobson (2003) argued that value creation alone is not sufficient in human resource management and that value appropriation in restricting the competitive forces helps in gaining competitiveness. This can be achieved through culture establishment, which starts from induction.

4.9.2 Effect of Human Capital Processes on Sustainable organizational competitiveness

On Human capital processes, it was postulated that there is no effect of Human Capital Processes on Sustainable organizational competitiveness. From the results ($\beta = 0.105$, $p < 0.05$), the findings agreed with reviewed literature. According to Tessema and Soeters (2006), investigations on the influence of Human Resource processes in Eritrea. The study found out that efficient implementation of these processes enhanced the performance at individual and organization level and thus enhancing sustainable organizational competitiveness.

Learning which is critical in building and improving knowledge and skills of employees, innovation that helps organizations to bring forth new products, production procedures and technology enabling organization to achieve sustainable competitiveness in a competitive business environment. The culture of innovation, learning and teamwork cannot be easily imitated by competitors. This is so as it becomes inherent with the operations of the organizations and internalized by the organization's members. This agrees with Angele (2012) that gaining sustainable competitiveness can be made possible through building a strong learning culture in an organization.

Furthermore Sung & Ashton (2005) posited that continuous skills development programmes, 'structured' induction training, 'work-(re)design' for improved performance, workforce diversity for competitive edge, mentoring, quality assurance and the Business Excellence Model or equivalent forms anticipated human resource processes in the quest for sustainable organizational competitiveness Learning opportunities translate aptitude into abilities through practice; experience and formal

training. The study submits that organizations have to ensure that people possess the necessary abilities to engage in behaviours required for effective performance according business organizations sustainable competitiveness.

Human capital processes include human resource management functions like training and development, (Bear, 2005). Recent studies reflect an impressive influence of Human Capital processes on sustainable organizational competitiveness. Researchers have divergent views about effect of HR processes and sustainable organizational competitiveness. They argue that HR processes and performance research have common attributes as well as contradictions (Boselie *et al.*, 2005; Katou & Budhwar, 2006; Wall & Wood, 2005, Wright & Boswell, 2002). The study thus affirms the fact that Human Capital processes have a strong relationship with sustainable organizational competitiveness.

Empirical studies indicate a strong and positive association between Human Capital processes and performance of organizations hence competitiveness (Katou & Budhwar, 2007; Kuo, 2004; Huselid *et al.*, 1997).

In a study of managers from Taiwan and Cambodia, Sang (2005) concluded that teamwork; training, and employee security had a positive and significant influence on non-financial and financial dimensions of organizational performance. The study validated the positive effects on operational dimensions of performance, namely, production flexibility, product cost, product quality, and product delivery. Most of the time, respondents reported that they used teams in their organizations while undertaking their duties and are encouraged by management to engage in team activities with a mean of 4.00 and 4.01 on items of Teamwork . This is in consensus with Foss and Lindenberg, (2012) that team-based organization seems to be central

for sustainable competitiveness because it involves “heterogeneous but complementary resources, a high degree of task and outcome interdependence, and the potential for super-additive outcome. Thus implying that human resource processes affect sustainable organizational competitiveness as shown by the study findings ($\beta = 0.105$, $p < 0.05$).

4.9.3 Effect of Human Resource Management Practices on Sustainable organizational competitiveness

The third hypothesis (H_{03}) postulated that there is no effect of Human Resource Management Practices on sustainable organizational competitiveness, and based on the results, the findings agreed with reviewed literature ($\beta = 0.749$, $p < 0.05$) that HRMP has some effect on sustainable organizational competitiveness. According to Reddington, Williamson and Withers (2005) organizations often target two or three organizational capabilities that are critical but with which they have not totally succeeded. These capabilities might include competitive shared mind-set, speed to market and innovation. Most vitally, human resource management practices should be designed and delivered to build these organizational capabilities and business strategy. Leaders and employees need to be competent, motivated, and empowered to contribute fully in the development of these capabilities (Reddington *et al* 2005).

Past studies have validated the link between Human Resource Management practices and superior business performance in United States and Europe (Boselie *et al.*, 2001; Asia (Bjorkmand & Xiucheng, 2002) and Africa (Chebregiorgis & Karsten, 2007). However, in a study of the Malaysian insurance industry which focused on investigation of individual HRM practices relationship to organization performance

(Beh and Loo, 2013) found out that there is a strong and positive correlation between performance appraisal practices and sustainable organizational competitiveness.

They also found out that internal communication practices, career planning, training, and development followed the performance appraisal in that order. This is in agreement with the findings of the study that human resource management practices have an effect on sustainable organizational competitiveness. Further, it concurs with Tsai (2006) in a study in Taiwan, found a positive relationship of employees' empowerment and organizations' performance. In a study of Human Capital, processes in Chinese small and medium enterprises, participatory decision-making, performance-based pay, free market selection and employees' commitment emerged as the most essential practices for improving sustainable competitiveness (Zheng *et al*, 2006).

Following the literature, human resources management practices are crucial to producing sustainable organisational competitiveness (Pfeffer, 1995; Youndt, *et al*, 1996; Chang and Huang, 2005; Guest, 2011; Barney *et al.*, 2012). As was reported by respondents, specific human resource management practices concerning performance appraisal, staff involvement, rewards management, must be designed to encourage sustainable organisational competitiveness efforts among employees. In organizations, these practices can be perceived as a signal of support that the organizations are prepared to offer to upgrade attitudes and behaviours concerning employees' commitment to sustainable competitiveness. This is why several authors considered the role of human resources management practices as central in the pursuit of sustainable organizational competitiveness (Jabbour and Santos, 2008; Kramar, 2014).

Thus, a link between HRMP and sustainable organizational competitiveness in the industry as exhibited in the findings of the study exists.

4.9.4 Work Arrangement moderating effect on the Relationship between Human Resource capabilities and Sustainable organizational competitiveness

Hypothesis (H_{04a}) stated that work arrangements do not moderate the effect of human resource competencies on sustainable organizational competitiveness ($\beta = 0.122$, $p < 0.05$) and the hypothesis was rejected. The study found that work arrangement had a positive and statistically significant effect in moderating human resource competencies on sustainable organizational competitiveness. The coefficient of 0.122 implied that one percent increase in interaction between work arrangement and human resource competencies was likely to result in 0.122 percent increase in sustainable organizational competitiveness, which was significant.

Studies by Kleinknecht, van Schaik and Zhou (2014) supported that there is relationship between the use of temporary and contract workers and the competitiveness of the organizations. They found out that organizations that relied on firm specific knowledge as a basis for their innovation benefited less from the flexibility afforded from having temporary workers. This is in line with findings of this study and indication that though knowledge resides in the organization's members; it is possible for an organization to loss competitiveness as knowledge may become redundant. There is support for this stance that use of temporary workers improved firm productivity because of the facility it accords organizations to screen employees before hiring them and due to the numerical flexibility it affords them (Hirsch & Mueller, 2012).

According to Chow & Keng-Howe (2006), competing demands between work and home have assumed increased relevance for employees in recent years, due in large part to demographic and workplace changes such as rising numbers of women in the work force, longer working hours and more sophisticated communications technology enabling near constant contact with the workplace. Furthermore, on-site childcare, financial or informational assistance with childcare services constitutes the approval of favourable work arrangements (Bassani, 2008). In response to these changes and the conflict they generate among the multiple roles that individuals occupy, organizations are increasingly pressured to implement work practices intended to facilitate employees' efforts to fulfil both their employment-related and their personal responsibilities (Chow & Keng-Howe, 2006).

It was further argued that organizations should have the tendency of attracting and retaining the most skilled labour as to their competitors through an effective human resource strategy (Guan & Ma, 2003). Through this, global challenges will be dealt with and the organization grows hence sustainable organizational competitiveness. Hypothesis (H_{04b}) stated that work arrangements do not moderate the effect of Human Capital processes on sustainable organizational competitiveness. From the study, work arrangements were found to have positive and statistically significant effect in moderating Human capital processes on sustainable organizational competitiveness ($\beta = 0.080$, $p < 0.05$) and the hypothesis was rejected. The coefficient of 0.080 implied that one percent increase in interaction between work arrangement and Human capital Processes was likely to result in 0.080 percent increase in sustainable organizational competitiveness.

It has been found out that those employees reporting high levels of discontent in work arrangements tend to exhibit lower levels of job satisfaction and organizational commitment (Burke & Greenglass, 1999) thus affecting sustainable competitiveness of firms, as they may not stay loyal to the organization. The work place activities that support favourable work arrangements include flexible working hours for instance flexitime, which permits workers to vary their start and finish times provided a certain number of hours be completed. Working from home is another form of flexible working arrangement (Kossek & Ozeki, 1998).

However, from the findings of this study it was established that Human capital processes interact with work arrangements to enhance sustainable organizational competitiveness. Angele (2012) established that development of integrated learning programmes assist in appraising employees' skills and knowledge. This enables business organizations to align workers' goals with their level of experience. Formerly stable environments are becoming uncertain as a result of accelerating technological advancement, globalization, industry convergence, aggressive competitive behaviour and deregulation of businesses (Huang, Dyerson, Wu and Harindranath, 2015).

Since organizations need to possess rare, inimitable and heterogeneous resources in order to develop a source of sustainable competitiveness, then a challenge exists for organizations operating in an industry where resources are mobile and homogeneous across organizations. Whereas it is important for organizations to have valuable, rare, difficult to imitate and non-mobile resources to develop initial sources of sustainable organizational competitiveness, for these competitiveness to be sustained, the organization must develop core competencies that will keep on regenerating the value.

The study findings affirm this as work arrangements help to reduce and manage the harm imposed by Human capital process activities. This harm covers three aspects: psychological, social and health aspects (Mariappanadar, 2012, 2013). In addition to reducing harm imposed on employees, employee growth is equally important for competitiveness. Although it takes time for organizations to see the full effect of learning and development, both are crucial to sustainable competitiveness as they create a win-win situation for employers and employees.

Hypothesis (H_{04c}) stated that work arrangements do not moderate effect of human resource management practices on sustainable organizational competitiveness. The moderating role of work arrangement was found in the study to be significant. The results indicated that work arrangement negatively moderated the relationship between human resource management practices and sustainable organizational competitiveness ($\beta = -0.214$, $P < 0.05$) and statistically significant. Therefore, the hypothesis was accepted. This implied that the interaction between work arrangement and human resource management practices had some impact on sustainable organizational competitiveness although negatively related.

The human resource management practices like performance appraisal and reward management as it relates to sustainable competitiveness may be affected by work arrangements as management may view employees on certain arrangements as unproductive. This may lead to organizations paying them possibly on piece rate and thus affecting organizations' competitiveness. Hirsch & Mueller (2012) argued that temporary workers lead to improved productivity and eventual competitiveness as this accords organizations numerical flexibility. However, beyond a certain point, the use of temporary workers results in the organization losing organization-specific human

capital and along with the associated spillover effects leads to loss of productivity hence unsustainable competitiveness.

For any organization to achieve its desired goals there is need for good management of physical or tangible resources as well as intangible aspects such as human resource capabilities. Human resource management practices include human resource management functions like staffing, performance appraisal, rewards and career planning (Bear, 2005). Further Findings by Barkhuizen, Mogwere & Schutte, (2014) showed that poor human resource management practices have a negative effect on psychological contracts, organizational commitment, work engagement, motivation, job satisfaction, happiness, meaningfulness, well-being and the retention of employees in various settings. However, appreciation of flexibility and social support varies with age and experience of employees. The study established that majority (40.3%) were between the ages of 26-33 years and that 36.5% had served below one year. Therefore, the support and flexibility they get from the organization may not enhance loyalty and retention.

Thus implying that undertaking human resource management practices without regard to the work arrangements adopted by the organization can be counterproductive as is exhibited by the study findings. When employees get involved in organizations management and decision-making, it may happen that they have issues with work-family conflict and stress sets in. Conversely, (Bakker & Demorouti, 2007) argued that individuals with greater access to workplace social support garner additional job psychological resources that provide a stress buffer to manage strain. When individuals feel that they are socially supported at work, cared for by social others and have access to help they derive satisfaction from their jobs.

Admittedly, (Cohen & Wills, 1985; Hobfoll, 1989) said that as individuals perceive more social support, their emotional and psychological supplies for coping with daily stressors increase, and perceptual appraisals of stressors decrease. When individuals have more social support in general and content specifically for managing work-family issues, these positive dynamics may spill over into the family role thereby reducing work to family conflict (Frone *et al.*, 1992).

These study findings attest to the view expressed by Stup *et al.* (2005) that the relationships between organizational performance and HRM are complex and not always positive and also in technological organizations remunerations may not usually be commensurate with output.

4.9.5. Validation of the Conceptual Model

Based on the above discussions it can be inferred that the findings validated the conceptual framework (Figure 2.1) developed for this study as they shed light on the link between Human Resource capabilities and sustainable organizational competitiveness as moderated by work arrangement. Results in model 5 indicated that human resource competencies ($\beta = 0.135$, $p < 0.05$) statistically highly significant, Human capital processes ($\beta = 0.105$, $p < 0.05$) statistically highly significant, Human resource management practices ($\beta = 0.749$, $p < 0.05$) statistically highly significant. The interaction of Z score work arrangement * Z score human resource competencies ($\beta = 0.234$, $p < 0.05$) statistically highly significant, Z score work arrangement * Z score Human capital processes ($\beta = 0.026$, $p > 0.05$) statistically highly insignificant and Z score work arrangement * Z score human resource management practices ($\beta = -0.214$, $p > 0.05$) negative and statistically significant.

Although the second last interaction was not significant the overall model:

sustainable organizational competitiveness = $\alpha + \beta_1 \text{ZHRC} + \beta_2 \text{ZHCP} + \beta_3 \text{ZHRMP} + \beta_4 \text{ZWA} + \beta_5 \text{ZHRC} * \text{WA} + \beta_6 \text{ZHCP} * \text{WA} + \beta_7 \text{ZHRMP} * \text{WA} + \varepsilon$ using F ratio 329.576 respectively with p value $0.000 < 0.05$ (level of significance) were statistically highly significant and the model was fit to predict sustainable organizational competitiveness. The findings highlighted implications to RBV theory, social exchange theory and performance theory on dimensions which affect sustainable organizational competitiveness. The resource-based view (RBV) aspires to explain the internal sources of an organization's sustainable organisational competitiveness.

Its central proposition is that if a firm is to achieve a state of sustainable competitiveness, it must acquire and control valuable, rare, inimitable, and no substitutable (VRIN) resources and capabilities, plus have the organization in place that can absorb and apply them (Barney 2002). This proposition is shared by several related analyses: core competences, dynamic capabilities and the knowledge-based view (Nick & Jac, 2002). Social exchange theory is one of the most influential conceptual frameworks for understanding attitudes and behaviour in organizations (Cropanzano & Mitchell, 2005). Although different views of social exchange exist (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005), there is an agreement that social exchange involves a series of interdependent interactions that generate an obligation to reciprocate.

According to Campbell (1990; 1993) a general model of individual differences in performance became very influential. In his model, Campbell differentiates performance components (e.g., job specific task proficiency), determinants of job performance components and predictors of these determinants. Campel *et al.* (1993)

argued that Predictors of procedural knowledge and skills are again abilities, personality, interests, and education, training, experience, and aptitude-treatment interactions—and additionally practice.

Motivation comprises choice to perform, level of effort, and persistence of effort. Employees with a high level of job security have a low probability of losing their job in the near future. Certain professions or employment opportunities inherently have better job security than others; job security is also affected by a worker's performance, success of the business and the current economic environment.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter contains a summary of findings, hypotheses tested and why they were supported or unsupported. It was followed by conclusions of the study, implications of the study in practice and theory, the conclusions drawn and the recommendations made thereof. It finally offers the suggestions for further research.

5.1 Summary of Findings

The research postulated seven hypotheses out of which six were supported and one was not supported. These are as follows:

There is no significant effect of Human Resource Competencies on sustainable organizational competitiveness. The relationship was positive and statistically significant ($\beta=.135$, $t=3.848$, $p<0.05$). Human Resource Competencies with sig ($p=0.000$) had a strong significance to sustainable organizational competitiveness. The hypothesis was therefore rejected and the alternative one that there is significant effect of Human Resource Competencies on sustainable organizational competitiveness adopted.

Secondly “there is no significant effect of Human capital processes on sustainable organizational competitiveness”. The relationship was found to be positive and statistically highly significant ($\beta = 0.105$, $t=2.797$, $p< 0.05$). The null hypothesis was therefore rejected. The findings of this study indicated that Human capital processes had positive significant effect on sustainable organizational competitiveness. The hypothesis was therefore rejected and the alternate one that there is a significant effect of Human Resource Processes on sustainable organizational competitiveness adopted.

The postulated hypothesis was that there is no significant effect of Human Resource Management Practices on sustainable organizational competitiveness. The relationship was found to be positive and statistically highly significant ($\beta = 0.749$, $t = 20.872$ $p < 0.05$). The null hypothesis was therefore rejected. This means that the alternate one that there is significant effect of Human Resource Practices on sustainable organizational competitiveness was adopted.

Work arrangements do not moderate the effect of human resource competencies on sustainable organizational competitiveness. The results indicated that work arrangement had a positive statistically significant moderating effect on the relationship between human resource competencies and sustainable organizational competitiveness ($\beta = 0.122$, $t = 6.315$, $P < 0.05$). This revealed that work arrangements significantly moderated the effect of human resource competencies on sustainable organizational competitiveness and the null hypothesis was rejected. The study concludes that work arrangements do moderate human resource competencies and sustainable organizational competitiveness, rejecting the hypothesis and therefore the alternate one that work arrangements moderate human resource competencies and sustainable organizational competitiveness adopted.

Further to the postulation, “work arrangements do not moderate the effect of Human capital processes on sustainable organizational competitiveness”. The results indicated that work arrangements had a positive statistically highly significant moderating effect on the relationship between human capital processes and sustainable organizational competitiveness ($\beta = 0.080$, $t = 3.131$, $P < 0.05$). This revealed that work arrangement significantly moderated the effect of human capital processes on sustainable organizational competitiveness and the null hypothesis was

rejected. The study concludes that work arrangements do moderate human capital processes and sustainable organizational competitiveness.

It was also posited that work arrangements do not moderate the effect of Human resource management practices on sustainable organizational competitiveness. The results indicated that work arrangements had a negative statistically significant moderating effect on the relationship between Human resource management practices and sustainable organizational competitiveness ($\beta = -0.214$, $t = -7.388$, $P < 0.05$). This revealed that work arrangement significantly moderated the effect of Human resource management practices on sustainable organizational competitiveness and the null hypothesis was rejected. The study concludes that work arrangements do negatively moderate the relationship between Human resource management practices and sustainable organizational competitiveness and statistically significant.

5.2 Conclusion of the study

Empirical findings of this study confirmed the significant relationship between Human Resource capabilities and sustainable organizational competitiveness. The study also confirmed significant moderating effect of work arrangement on the relationship between human resource capabilities and sustainable organizational competitiveness of mobile phone service providers in Kenya. Based on the hypothesis on Human Resource Competencies, the findings agreed with reviewed literature. According to Khandekar *et al.* (2005), organizations survive on the employee's knowledge and understanding to compete effectively in the market. If this is realized then the organization can gain a competitive edge. It can therefore be concluded that Human Resource Competencies had significant effect on sustainable organizational competitiveness among mobile phone service provider firms.

Tsai (2006), in a study in Taiwan, found a positive relationship of employees' empowerment and organizations' performance. In a study of HRM practices in Chinese small and medium enterprises, participatory decision-making, performance-based pay, free market selection and performance appraisal, employees' commitment emerged as the most essential outcome for improving performance competitiveness (Zheng *et al.*, 2006). This findings submitted to Resource based view theory that resources to obey the VRIO model for organizations to sustain competitiveness. It can therefore be concluded that human capital processes had a significant effect on sustainable organizational competitiveness among mobile phone service providers.

According to Reddington *et al.*, (2005) Companies often target two or three organizational capabilities that are critical but with which they have not totally succeeded. These capabilities might include competitive shared mind-set, speed to market and innovation. Most vitally, human resource practices should be designed and delivered to build these organizational capabilities and business strategy. It can therefore be concluded that Human Resource Management Practices had significant effect on sustainable organizational competitiveness among mobile phone service providers.

The study revealed that work arrangements significantly moderated the effect of Human resource competencies and Human resource management practices on sustainable organizational competitiveness. However, work arrangement moderated the relationship between Human capital processes and sustainable organizational competitiveness but not significant. On the overall it is concluded that work arrangements do moderate the relationship between Human resource capabilities and sustainable organizational competitiveness and statistically significant.

There is an indication that competing demands between work and home have assumed increased relevance for employees in recent years, due in large part to demographic and workplace changes such as rising numbers of women in the work force, longer working hours and more sophisticated communications technology enabling near constant contact with the workplace. According to Chow, & Keng-Howe (2006) argued that in response to these changes and the conflict they generate among the multiple roles that individuals occupy, organizations are increasingly pressured to implement work practices intended to facilitate employees' efforts to fulfil both their employment-related and their personal responsibilities.

In their 2007 meta-analysis, Gajendran and Harrison (2007) found that working from home was associated with increased job satisfaction and reduced intentions to turnover, with these relationships partially mediated by lower levels of unfavourable work arrangement. Similarly, Roehling, and Moen (2001) found in a representative sample of 3,381 American workers that the presence of flexible time policies and childcare assistance was associated with employee loyalty for those with family responsibilities, hence sustainable organizational competitiveness. This is confirmed by the study findings in this study that work arrangements moderate the relationship between human resource management practices and sustainable organisational competitiveness.

Work-family specific social support goes a step further than general support, in that it not only buffers stress from job demands, but helps to conserve resources in both the work and family domains (Allen, 2001) by providing support specifically directed at balancing demands from both spheres (Hammer *et al.*, 2009; Thomas & Ganster,

1995). Most common options in a compressed workweek are: four 10-hour days, three 12-hour days, or a week of five 9-hour days followed by a week of four 9-hour days.

Since work-to-family conflict is a situation where the demands of the work role deplete resources (time, energy, emotions) required to participate in the family role (Lappiere & Allen, 2006). Individuals with greater access to workplace social support garner additional job psychological resources (Bakker & Demorouti 2007) that provide a stress buffer to manage strain. For an employee to perform effectively in a company, job satisfaction is one of the cardinal points. It is important for both the worker and the organization. Job satisfaction brings about a sense of fulfilment and security to the employee. Due to these facts, the commitment level of employee will be increased, absenteeism will reduce and the turnover rate will decrease (Yücel, 2012). In the case of the organization, when employees are satisfied with their jobs, the workforce will be more committed and this will reduce the cost of recruitment and training. An individual's general attitude towards his or her job is known as job satisfaction (Syed and Yan, 2012). The study therefore concluded that work arrangements do moderate the effect of human resource capabilities on sustainable organizational competitiveness.

5.3 Implication of the Study

The section covers the implications of the study in theory and practice.

5.3.1 Implication for Theory

First, the research findings supported the RBV theory. The elementary feature of the Resource Based View is that successful firms possess internal resources and capabilities that are valuable, rare, and inimitable and lack substitutes (Hatch & Dyer, 2004). Resource Based View research largely treats value creation as

exogenous and focuses on incremental opportunities to sustain organisational competitiveness and defensive measures to impede the deterioration of the sustainable organisational competitiveness. In summary, Resource Based View highlights the critical role of human resources in establishing and sustaining competitiveness. Value creation begins by delivering value to customers. Lepak, Smith and Taylor (2007) categorised this at three levels: individual, organization and society.

The former two are termed as micro level and fall under the scope of this thesis. When a firm's customer services and other related issues as measures of values exceed those offered by competitors then value creation occurs (Sirmon, Hitt and Ireland 2007). Mizik and Jacobson (2003) ascertained that value creation alone is not sufficient and that value appropriation in the form of restricting the competitive forces helps gaining competitiveness. The superiority of doing something better in the market place gains competitiveness. This understanding of value creation and its linkage to competitiveness is quite central to managers' responsibilities and their leadership. Sustaining an organization's value is as important as creating value for competitiveness. This is well exhibited in the study as the findings confirmed that internal organisational resources which are intangible provide a basis for sustainable organisational competitiveness.

Secondly, the results of the study supported performance theory. It is one of the main goals of expertise research to identify what distinguishes individuals at different performance levels (Ericsson & Smith, 1991). More specifically, expertise research focuses on process characteristics of the task accomplishment process. On the most general level, one can differentiate between three different perspectives: (1) an

individual differences perspective which searches for individual characteristics (such as general mental ability, knowledge, skills and personality traits) as sources for variation in competitiveness (performance), (2) a situational perspective which focuses on situational aspects as facilitators and impediments for competitiveness, and (3) a performance regulation perspective which describes the competitiveness process. These perspectives are not mutually exclusive but approach the competitiveness phenomenon from different angles which complement one another. The individual differences perspective focuses on performance differences between individuals and seeks to identify the underlying factors.

According to Campbell (1990) and Campbell *et al.* (1993), a general model of individual differences in performance became very influential. In their model, Campbell differentiates performance components (e.g., job specific task proficiency), determinants of job performance components and predictors of these determinants. Campbell describes the performance components as a function of three determinants (1) declarative knowledge, (2) procedural knowledge and skills, and (3) motivation. Declarative knowledge includes knowledge about facts, principles, goals, and the self. The study findings support this proposition as human resource competencies with its measures of knowledge, skills and abilities positively and significantly affected sustainable organizational competitiveness ($\beta = 0.122$, $t = 6.315$, $P < 0.05$). It is assumed to be a function of a person's abilities, personality, interests, education, training, experience, and aptitude-treatment interactions (Campbell *et al.*, 1993).

Procedural knowledge and skills include cognitive and psychomotor skills, physical skill, self-management skill and interpersonal skill. Predictors of procedural knowledge and skills are again abilities, personality, interests and education, training,

experience, and aptitude-treatment interactions and additionally practice. The moderation role of work arrangement brought in the aspect of interaction between the variables (Human resource competencies, Human capital processes and Human resource management practices with work arrangements) so as to enhance employee sustainable organisational competitiveness. This is in line with the theory that there are certain Hr characteristics that distinguishes performers from dismal performers.

Thirdly the research supported the Social exchange theory as is one of the most influential conceptual frameworks for understanding attitudes and behaviour in organizations (Cropanzano & Mitchell, 2005). Although different views of social exchange exist (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005), there is an agreement that social exchange involves a series of interdependent interactions that generate an obligation to reciprocate. In this regard, social exchange involves the exchange of tangible and intangible resources that are governed by the norm of reciprocity (Gouldner, 1960). As Gouldner (1960) intimated the norm of reciprocity is a universal principle to guide behaviour so that an individual is obliged to return favourable treatment received from a donor there is (an expectation that in providing another with benefits) an obligation created that the recipient will reciprocate the benefits received.

According to Chambel and Castanheira (2012) there is a social exchange process that underlies workers' attachment to organizations. They found in a sample of Portuguese blue-collar workers from a temporary help agency that when organizations provided training to these workers they reciprocated by reporting high affective commitment to the organization. In this study, it is explained by the study results that work arrangements moderate the relationship between Human resource

capabilities and sustainable organizational competitiveness.

5.3.2 Implication for Practice

First, the finding of this study provided insightful information to Mobile service providers' management to initiate proactive and structured in-service training to improve employee's knowledge and understanding to compete effectively in the market. If this is realized then the organization can gain a competitive edge. This they should do through seminars, paid formal training and skill acquisition programs. Mobile service provider's management should initiate programs of training and education, innovation and team building. These programs will help foster the acquisition and enhancement of competences and respond to the desire by the employees to have a job that enhances their professional and personal development. The management should create sustainable strategies to devise means on how clients can act as catalyst in the telecommunication value chain to help foster innovation by exerting pressure on supply chain partners to improve overall performance and also by helping them to devise strategies to cope with unforeseen changes.

Mobile service providers' management should adopt HR best practices and Management processes, such as participation and involvement, effective reward management, appropriate performance appraisal, promotion from within and training and skill development, results in higher productivity and profit across organizations and this should be effectively implemented by all organization and stakeholders.

According to Slaughter (1998) human capital processes is the actual use of a nontrivial change and improvement in a process, product or system that is novel to the institution developing the change; whereas, Stewart and Fenn (2006) described human

capital process as the profitable exploitation of ideas, which have an important role to play in seeking sustainable organizational competitiveness.

Many studies have shown that technological processes could bring positive impacts, enhancing the competitiveness of organizations. This is supported by the outcome of the study. Human resource capital processes capability is a special asset of an organization. It is tacit and non-modifiable, and it is correlated closely with interior experiences and experimental acquirement (Guan & Ma, 2003).

However, the study showed the interaction of work arrangement and human capital processes had insignificant results on the overall, this therefore implies that the use of work arrangement on organisations with human capital processes may not add value for competitiveness. Management should thus evaluate the effectiveness of the systems they use in human resource management to avoid unnecessary expenditures on processes and activities that do not add value to its staff and eventual sustainable organisational competitiveness.

Secondly, the study has put into focus the moderating role of Work Arrangements in the relationship between Human Resource Capabilities and Sustainable organizational competitiveness. The managers in the mobile phone service provider organizations should establish the nature of Employees that they have so as to know what interests them. Since work-to-family conflict is a situation where the demands of the work role deplete resources (e.g., time, energy, emotions) required to participate in the family role (Lappiere & Allen, 2006), individuals with greater access to workplace social support garner additional job psychological resources (Bakker & Demorouti, 2007) that provide a stress buffer to manage strain. However, there are those employees who

prefer standard work arrangement as exhibited by the research findings (M= 3.19; SD= 0.63)

The work place practices that support favourable work arrangements include flexible working hours for instance flexitime, which permits workers to vary their start and finish times provided a certain number of hours be completed. Working from home is another form of flexible working arrangement. Furthermore, on-site childcare, financial or informational assistance with childcare services constitutes the approving work arrangements (Bassani, 2008). Management should schedule their time appropriately to balance between work activities and non-work activities in order to succeed in attaining the optimality. Further, mobile service provider organizations' management should create policies to regulate family or personal leave, flexible work options and dependent care to improve employee productivity and therefore competitiveness.

5.4 Recommendations for further research

Further research needs to be done on moderating role of work arrangements on Human capital processes and sustainable organizational competitiveness as it exhibited insignificant results. In addition, it is recommended that research be extended to other sectors of the economy as this research only used mobile phone service providers in Kenya. This study explored HR capabilities from the perspective of sustainable organizational competitiveness and focused on three dimensions, namely, human resource competencies, human capital processes and human resource management practices with work arrangement as a moderator. Subsequent studies can extensively investigate other possible HR dimensions, such as the effects of specific HRM functions. The same research can be carried out using data collection

instrument with 7 point Likert scale as the five(5) point Likert scale has some limitations sine the mean is close to three(3) hence limits interpretation.

Finally, the dynamic relationships of the study constructs can be analyzed by other approaches, structural equation modelling (SEM), use other data analysis software other than SPSS.

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APPENDICES

APPENDIX I: INTRODUCTION LETTERS

RICHARD K. ROTICH
MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS
PO BOX 3900
ELDORET
DATE.....

Dear Sir / Madam.....

RE: INTRODUCTION

I am a postgraduate student at Moi University undertaking Doctorate degree in Business Management. I am conducting research study entitled “Effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya: Moderating role of work arrangements”. The targets are mobile phone service provider employees in western Kenya Region.

This is therefore to request you to complete the questionnaire attached as honestly as possible. It is expected that results from this study will provide useful information on sustainable organizational competitiveness of mobile phone service provider firms in Kenya. A group of researchers including myself will be visiting your organization to administer questionnaires to managers and other staff through drop and pick later. Please be assured that the responses will be completely confidential and information will only be published or released in summaries from which neither individuals nor companies can be identified.

Thank you for your co-operation.

Yours faithfully

Richard. K. Rotich

APPENDIX II: QUESTIONNAIRE

This questionnaire has been developed to obtain information regarding “**the effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya: moderating role of work arrangement**”. The purpose is purely academic research (Doctor of Philosophy in Business Management, School of Business and Economics, Moi University) and the information provided will be treated with utmost confidence. Please provide the most appropriate response to the questions

SECTION A:

1. Gender

Male

Female

2. Age level

18-25

26-33

34-41

42-49

50+

3. Education level

Primary Secondary Tertiary University

Masters/ Postgraduate and Above

4. What is your designation?

Regional sales Manager

Area sales Manager

Trade development representative

Customer care employees (permanent)

Customer care employees (contract)

Other

Specify

5. How long have you worked for this organization?

1-2yrs

2-5yrs

6-10yrs

>10yrs

SECTION B

6. Which department are you attached to?

Marketing

Human Resource

Sales

Customer

Front office

Others Specify

7. Which department do you personally think you would perform best?

Marketing

Human Resource

Sales

Customer care

Front office

Others Specify

8. Which mode of work arrangement are you in?

Full time

Part- time

Flexi time (adjustable work schedule)

Telework (From home)

Others Specify

SECTION C: HUMAN RESOURCE CAPABILITIES

Put a tick (√) against your response to the following statements:

	Question	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
		1	2	3	4	5
Human Resource Competencies						
1	I was required to possess a professional qualification before I was hired.					
2	The job I am performing is related to my professional qualification					
3	We are given professional titles based on the time invested in education and related training					
4	We are encouraged to improve our skills					
5	I clearly understand my job description					
6	People in our organization feel that their skills are valued and used.					
7	I have an up-to-date job description from my organization.					
8	We are provided with job rotation practices to enhance skills					
9	I came to this organization with experience of working in other organizations.					
10	I was provided with less orientation on the job after recruitment.					
11	I was assigned to my job based on my educational/ professional or training qualification.					
12	I was hired because of my professional knowledge for a specified job.					
13	We are allowed to shape our own job description rather than adopting specific job description.					
Human Capital Processes						
14	I have been encouraged to further my training related to my job.					
15	I was inducted when I joined the organization with job-related training.					
16	I have been equipped with skills to help me take up new roles in future.					

17	We are encouraged to come up with new services for our customers					
18	We are encouraged to use new ways in the way we perform our duties					
19	The organization does less to develop employees' competencies.					
20	The company has done little to adopt and use new technology in its activities.					
21	Leadership is not seen as very important in our organization.					
22	Managers in our organization contribute training and development of employees					
23	The organization has very good team building exercises					
24	We always have open communications with managers.					
25	We are encouraged to participate in suggesting improvements in our organization					
26	We are encouraged to work in teams formed in our organization					
27	Employees are allowed to be responsible for their own work.					
28	Change is managed in our organization through good relationship between supervisors and employees					
29	In our organization there is little effort put into developing productive managers.					
30	I Learn more by doing my job than when I attend training outside my organization.					
31	I am doing my job the way I used to do when I joined this organization					
32	We are encouraged to come up with new ideas to make our organization succeed.					
Human Resource Management Practices						
33	Our managers measure whether employees are doing their work as agreed with their managers regularly					
34	We are rewarded in this organization based on the amount of sales we make.					
35	We are all involved in decision making					
36	There is no connection between the					

	work I do and what the company wants to do in the future.					
37	Employees' needs and skills are very important in our organization.					
38	We are rarely rewarded for very good performance.					
39	Managing the complexity of change is a critical management function in our organization					
40	We work in teams and control the way we work					
41	Few employees in this organization are involved in most of the decision making					
Work Arrangement						
42	Employees are allowed to work at a time they like to so long as they complete the required hours per day.					
43	This organization allows us to work for less than six days in a week.					
44	I work on Part time in this organization.					
45	I like the way work hours have been organized in this organization					
46	My work gives me a sense of achievement.					
47	I am happy to say I work at this organization					
48	I am comfortable with the work I am expected to do.					
49	I enjoy friendly working conditions in this organization.					
50	I hardly leave the work place in a daily basis in this organization.					
51	Employees with babies bring them to work to be taken care of by care givers in our organization.					
Sustainable organizational competitiveness						
52	I'm guaranteed of my Job security in this organization.					
53	So many people have left the Job in my organization recently.					
54	I am comfortable to work in this organization in the next five to ten years					
55	My organization rewards employees who design exemplary products.					
56	I believe in the organization's business					

	future prospects					
57	My organization has been making the changes necessary to compete effectively.					
58	I feel good about the future of the company.					

END

APPENDIX III: LETTER OF RECOMMENDATION



MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS

Tel: (053) 43620
 Fax No: (053) 43360
 Telex No. 35047 MOIVARSITY

Box 3900
 Eldoret
 KENYA

REF: SBE/PGR/STA/20

DATE: 15th September, 2014

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: RICHARD K. ROTICH - SBE/DPHIL/BM/005/10

This is to confirm that the above named person is a bonafide student of Moi University, School of Business & Economics undertaking a Doctor of Philosophy degree in Business Management.

He has completed course work, defended his proposal and currently proceeding to the field to collect data for his thesis titled; "*Effect of Human Resource Capabilities on Sustenance Organizational Competitiveness in Mobile Phone Service Providers in Kenya: Moderating Role of Work Arrangements*".

Any assistance accorded to him will be highly appreciated.

Yours faithfully,



PROF. MICHAEL KORIR
HOD, MANAGEMENT SCIENCE

APPENDIX V: LETTER FROM COUNTY COMMISSIONER**THE PRESIDENCY
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT**

Telegrams:
Telephone: Kericho 20132
When replying please quote
kerihocc@yahoo.com



COUNTY COMMISSIONER
KERICHO COUNTY
P.O. BOX 19
KERICHO

REF: MISC.19 VOL.II/ (7)

30th March, 2015

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – RICHARD KIPKORIR ROTICH

The above named person is from Moi University Eldoret. He has authority to carry out research on ***"Effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya: Moderating role of work arrangements"***.

He has also been granted authority to carry out research by the National Commission for Science, Technology and Innovation.

Please accord him the necessary action.


JULIUS BIRGEN
FOR: COUNTY COMMISSIONER
KERICHO COUNTY

APPENDIX VI: LETTER FROM COUNTY DIRECTOR OF EDUCATION

**MINISTRY OF EDUCATION, SCIENCE AND
TECHNOLOGY**
STATE DEPARTMENT OF EDUCATION

FAX NO.05221361
When Replying Please Quote:

County Education Office
P.O BOX 149
KERICHO

REF: KER/C/ED/GC/2/VOL.I/210

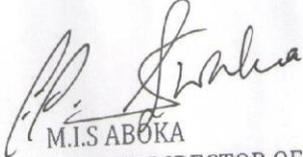
1st April, 2015

TO WHOM IT MAY CONCERN.

RE: RESEARCH AUTHORIZATION - RICHARD KIPKORIR ROTICH.

The above named has been authorized by National Commission for Science, Technology and innovation to undertake research on *"Effect of human resource capabilities on sustainable organizational competitiveness in mobile phone service providers in Kenya, moderating role of work arrangements"* for a period ending 28th February, 2018.

Kindly accord him relevant assistance to complete the research.


M.I.S ABOKA
COUNTY DIRECTOR OF EDUCATION
KERICHO COUNTY.