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**The Effect of Engagement Strategies on The Employee Engagement of Millennials in  
Kenya's Software Development Firms**

**Rufus Ngugi Mbugua**

**Submitted In Partial Fulfilment Of The Requirements For The Masters Of Business  
Administration At Strathmore University**



**Strathmore University Business School,  
Strathmore University,  
Nairobi, Kenya.**

**October 2021**

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## ABSTRACT

This paper analysed the effect that four (4) specific employee engagement strategies had on employee engagement in the software development space in Kenya. The study was guided by these four objectives/strategies; where the four engagement strategies analysed were career development, work life balance, and the use of enterprise social media. The target of the study was the millennial workforce in the software industry in Kenya, that is, employees between the ages of 20 and 39 years. From a total population of 283 ICT companies focused on system development, two (2) companies made up the population of the study. The companies selected operate in Nairobi, Kenya, as software development firms namely, Arifu and Andela. Millennials from their respective workforces were targeted in this study so as to understand their employee engagement strategy preference and overall reception to their company's current employee engagement initiatives, to measure these against the prevailing objectives of the study. The study was quantitative, with a population size (employees of the two companies) of 430. The sample size of the study was 189 and actual respondents were 103. Questionnaires were shared electronically (via Survey Monkey) to the employees questioned to collect data on their level of employee engagement based on the engagement strategies employed in their organizations. Pearson's correlation was used to evaluate the four (4) strategies to ascertain which strategies held higher importance to the millennial workforce. The study found that all four strategies were positively related to employee engagement though to varying degrees. Career Development had a Pearson's correlation score of 0.604 making it the second-most related to employee engagement. It however ranked highest among all strategies with a mean of 2.38. Work-Life Balance had a score of 0.269 making it the least related to employee engagement. It was ranked as the fourth-most important strategy according to millennial employees, with a mean of 3.9. Enterprise Social Media had a Pearson's correlation score of 0.529 making it the third-most related strategy. Gamification had a Pearson's correlation score of 0.747 and emerged as the most related strategy. Remuneration, though not studied as one of the objectives, was regardless, highly regarded by the employees but was only considered feasible after a suitable work-life balance was attained. Companies should invest in the training of their employees and have conversations about their employees' career objectives. They should also avoid overworking their employees, causing probable burnout, by enabling them to have a work-life balance. Frequent and timely communication will promote their alignment with company objectives and allow for dialogue and open communication. The concept of a fun and challenging work environment should be demystified so that it can add value in the workplace. There should be a balance between challenging work, and realistic expectations.

### **Keywords:**

Millennials, Employee Engagement, HR, ICT, System Development and Software Development

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## LIST OF ABBREVIATIONS

EE: Employee Engagement

ESM: Enterprise Social Media

HR: Human Resource

HRD: Human Resource Development

HRM: Human Resource Management

ICT: Information and Communication Technology

PRC: Pew Research Centre

ROI: Return On Investment

SDT: Self-Determination Theory

WLB: Work-Life Balance



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# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Baumruk (2004) referred to engagement as the energy and/or passion employees harbour towards their jobs and their employer, resulting in an emotional and intellectual commitment to their organization. When describing engagement, Richman (2006) called it “the driving force for an employee to use his/her discretionary efforts, experience, and energy, to directly benefit the employers without any explicit assurance of personal gain”. Kumar and Swetha (2011) referred to employee engagement as a key driver for organizational success and found that high levels of engagement promoted the retention of talent, fostered customer loyalty, and improved organizational performance and stakeholder value. In their study, an examination of employee engagement, engagement was found to be further influenced by several factors such as workplace culture, training and development opportunities, organizational communication, and alignment as well as management styles. These factors were not explored in the study, however a recommendation made was to ascertain which factors (or engagement strategies) were, or were not, most important for employee engagement.

Saks (2014) argued that there continues to be confusion, disagreement, and a lack of consensus on the meaning and certainness of employee engagement among scholars and practitioners (Bakker, Albrecht, & Leiter, 2011; Cole, Walter, Bedeian, & O’Boyle, 2012). The problem is due in part to the conceptual overlap of engagement with other, more established constructs such as job satisfaction, organizational commitment, and job involvement (Saks, 2006; Shuck, Ghosh, Zigarmi, & Nimon, 2012). A related problem is that much of the research that has been conducted on engagement has been grounded in research on job burnout (Maslach, Schaufeli, & Leiter, 2001), and as a result its contrast from burnout has also been questioned.

In research conducted by Shuck and Wollard (2010), the term employee engagement was found to have gained considerable popularity although has remained inconsistently defined and conceptualized across scholarship, research, and practice. This led to varied definitions of employee engagement further increasing its ambiguity. Macey and Schneider (2008) observed that there was a lack of continuity in the iterations of the concept: consulting firms claimed to have developed interventions which aid organizations in creating employee engagement, but

lacked “a working definition of the concept, referring to engagement only as a “persistent positive state” (Shuck & Wollard, 2010, p. 90). Other researchers have offered reinterpretations of the concept as ‘work passion, organizational commitment, or job involvement’ (Zigarmi, Nimon, Houson, Witt, & Diehl, 2009), to differentiate their offerings. This lack of continuity contributes to a deep misconception of the complexities surrounding the concept. The studies mentioned above, however variant, share the theme that the consequences of employee engagement were positive, that is, organizational commitment, and employer gain.

Saks (2006) affirmed this in his study on the Antecedents and Consequences of Employee Engagement. The study posited that, at the time, there was little academic literature on the definition of employee engagement and that majority of what existed was written by practitioners. The study also found that there existed a meaningful difference between job and organization engagements and that perceived organizational support predicted both job and organization engagement. Both job and organizational engagement mediated the relationship between the antecedents and job satisfaction, organizational commitment, intentions to quit, and organizational citizenship behaviour.

Engagement was found to be positively related to organizational commitment, job performance and extra-role behaviour and negatively related to intention to quit. (Schaufeli and Bakker, 2004; Sonnentag, 2003). IT companies globally had been characterized by a high rate of employee turnover, as found in a study conducted by Westlund & Hannon (2008). Malaysia’s IT organizations, for example, were facing the same issue in retaining their employees. Data revealed that the ICT sector in Malaysia was facing the highest employee turnover rate, at 23.1%, as opposed to all other industries in the country according to Malaysian Employment Statistics **analysed** by the Radford Salary Increase and Turnover Study (2013-2016) (Alias, Noor, & Hassan, 2014).

British Council, Hall, & UK AID (2017) stated that particularly for educated youth, jobs in software and application development, in business-process outsourcing and in creative/editorial tasks **have** become more and more attractive and available. Though the focus of their study was the role ICT played in productivity growth, this growth of ICT in the last decade as well as the number of millennials within it informs the selection of the industry for this study (software development firms) as well as the employees to target (millennials). These

findings on not only employee engagement but the negative state of employee retention in the ICT industry (made up predominantly of millennials) necessitated a better understanding of this specific generation.

According to Harber (2011), the workplace consisted of five generations with only four having the responsibility of working together. The generations cited were the Traditionalists (generally born between 1927-1946), the Baby Boomers (born between 1946 and 1964), Generation X (between 1965 and 1975), Generation Y (also known as Millennials, born between 1975 and 1995), and Generation Z (born from 1995 to a date yet to be announced; are also known as iGen and Centennials) (The Centre for Generational Kinetics, 2020). Millennials had been a part of the corporate world for a brief period in comparison to other generations, according to DelCampo & Haggerty (2011). Since this large group of young people entered the current workforce most recently and would undoubtedly continue to grow over time, managers were cautioned to pay special attention to the different expectations, values, needs, and desires of this generation. Generation Z had not yet entered the workplace in significant numbers (at the time of this study) due to their age (20 years old); therefore, the study did not focus on them.

Millennials were the focus of this study not only because they are different from older cohorts, but they are more in number than the soon-to-retire Baby Boomer generation – both at the workplace and globally. According to PwC (2011), this generation already forms 25% of the workforce in the United States and accounts for over half of the population in the Indian sub-continent. As of 2020, millennials constituted 50% of the global workforce. In their annual Millennial Survey, Deloitte (2015) found that millennials would focus on employee well-being if given a chance to lead the organizations that they worked for. The only focus that surpassed employee well-being was the longevity of the organization. The report also found that there was a high correlation between employee satisfaction and a company's sense of purpose. 77% of those interviewed stated that their company's "purpose is part of the reason I choose to work here."

In the 2016 survey, Deloitte found that 56% of millennials interviewed stated that they had ruled out places to work since the organizations in question did not align with their values/conduct. Other aspects that came to the fore were flexibility and work-life balance. The report further found that a lack of support in career development could be correlated with

employee loyalty. Amongst those that stated they would leave their respective companies within a two (2) year period if they had the opportunity, more than 70% of the respondents that participated in the study expressed that their leadership and/or management skills were (at the time) not being developed. In their more recent survey (2018), their findings were confirmed, and respondents stated that continuous learning and training at their places of work was especially important when choosing an organization to work for.

Goessling (2017) stated that human resource management had struggled with maximising production and increasing the bottom line since its introduction to the workplace. Companies that were able to establish themselves as a good place to work would have a competitive advantage in the marketplace of the future. Buchanan (2016) posited that the key ingredients to a high-performance workplace include formal appraisal systems, incentives based on performance, employee autonomy, continuous improvement, flexible working practices and the alignment of workforce requirements with business strategy. These key ingredients had been mentioned in multiple studies justifying a need to not only define them, but to study their effect on employee engagement. In this direction, this study sought to ascertain the effect of employee engagement strategies in contemporary human resource management, namely: career development, work-life balance, the use of enterprise social media and gamification on employee engagement.

## **1.2 Statement of the Research Problem**

Millennials have been characterised by their economic prosperity, advancement of instant communication technologies via the Internet, social networking, and globalization, who need a greater balance between work and life, more flexibility in job assignments and want to define the exact role in their job. Millennials value freedom and work-life balance more than Baby Boomers (Cennamo & Gardner, 2008; Smola & Sutton, 2002; Twenge, 2010). Millennials' impatient behaviour, according to Karugo (2017), affects their productivity, whilst their millennials tech savvy behaviour helps improve efficiency at work. Her study also found out that millennials lack concentration at work, are addicted to social media applications, are indecisive, are sensitive about how others feel about them, and always want to be popular and liked. According to a survey conducted by Pew Research Centre (2010), 75% of millennials were members of an online social network. The January 2010 Millennial Survey was conducted on telephone interviews done under the direction of Abt SRBI Inc. among a national sample of

2,020 adults living in the continental United States, 18 years of age and older. Additionally, 62%, more than any other generation, were connected to the internet via a laptop or mobile device. These findings introduced what millennials characterized as important to them in the workplace.

An earlier study conducted by Pew Research Centre (2007) similar to the one conducted in 2010 (referred to as ‘Generation Next’) characterised millennials as the ‘look at me’ generation, depicting them as self-confident and self-absorbed. Their loyalty and work-ethic were also seen as lacking (Martson, 2016). PRC (2007) further found that 57% of millennials shared the sentiment that there was an unlikelihood of them staying with their current employers for the remainder of their working life. This was a stark contrast to 62% of Generation X employees, and 84% of Baby Boomers who stated that they had no intention of leaving their current employers. The main survey was conducted from September 6<sup>th</sup> to October 2<sup>nd</sup>, 2006, among 1,501 adults- including 579 people ages 18-25. These studies described conflicting traits of millennials in the workplace, which PRC argued showed a lack of concrete understanding of what they sought out from their employers, using criteria such as: internet use, religious affiliation, and body decoration as parameters to ascertain their values in terms of career development and engagement. For instance, they surmise that being “famous and rich” are aspirations that millennials hold dear, which fails to grasp the values in their lives influencing their decision making.

A journal article published by Bannon et al. (2011) on understanding millennials in the workplace argued that employers needed to determine what type of compensation, rewards, recognition, and other incentives would meet the expectations of the millennial workforce. Meeting these needs, the consequence of their engagement, would lead to increased morale, efficiency, and greater long-term employee retention (the inverse of the intention to quit). This study sought to bridge the theoretical and practitioner gap in the understanding of millennial employees by quantitatively analysing the effect employee interventions or engagement strategies (namely supporting career development, offering a work-life balance, using enterprise social media and using gamification) had on this generation.

The information age has led to a shift in the global economy’s focus, from physical resources to the way information is manipulated (Castells, 2000; Drucker, 1969; Machlup, 1962). ICT

has become the greatest driving force behind this. The challenge of keeping up with the information economy particularly affects developing countries. Although many developing countries still have struggled with the provision of basic services like clean water and electricity, many are increasingly looking to ICT for development projects to improve their social and economic development (Shih, Kraemer, & Dedrick, 2008; Walsham, Robey, & Sahay, 2007). “Kenya is now widely recognized as a world leader in using ICT as a game changer and a global leader in IT applications” (World Bank, 2012, p1). Millennials totalled to an excess of 10.1 million out of Kenya’s population of 49.7 million in the most recent census (Population Reference Bureau, 2017). The figure is higher since the figure given was for citizens between the age of 15 and 24. This large population proves why it is imperative for scholarship and human resource practitioners to understand millennials’ relationship with their organizations and to identify the effect of engagement strategies used by employers.

### **1.3 Research Objectives**

- 1) To measure what effect Career Development Opportunities has on employee engagement in millennials.
- 2) To measure what effect having a Work-Life Balance has on employee engagement in millennials.
- 3) To measure what effect Enterprise Social-Media has on employee engagement in millennials-
- 4) To measure what effect Gamification has on employee engagement in millennials.

### **1.4 Research Questions**

1. What effect does career development have on employee engagement in millennials?
2. What effect does a work-life balance have on employee engagement in millennials?
3. What effect does enterprise social media have on employee engagement in millennials?
4. What effect does gamification have on employee engagement in millennials?

### **1.5 Scope of the Study**

Studies on the definition, factors that influenced and the subsequent consequences (or benefits) of employee engagement (or the lack thereof) were used in researching this study, as well as

contextualizing it. Understanding employee engagement necessitated reading studies on the measuring employee engagement as well four (4) factors (or engagement strategies) and their effects. Millennials as a generation and a dominant workforce (in population) was also studied in the literature review, to not only find the extent of their engagement, but to also ascertain how they were influenced in the workplace.

The ICT sector in Kenya contributes 8% to the National Gross Domestic Product, according to the Kenya Business Guide Think Tank (2018). Further, the firm also found that the country had reported “improved global competitiveness by moving up 15 points on Global Innovation Index (GII), e-Government and Networked Readiness Index (NRI) ranking” (Kenya Business Guide, 2018, p 6). A study conducted by Jumia (2018) states that the ICT sector in Kenya grew from 10% to 22% in 2017, which contributed 1.6% of total GDP to the economy. In this direction, in 2018, Kenya’s GDP growth stood at 5.7% versus the rest of Africa’s GDP growth of 3.5%. The study posits that this growth has been supported by strong government buttress, private sector innovation and foreign investment. Table 1.1 shows ICT’s year on year growth compared to other sectors (KNBS,2020).

Nairobi, Kenya, was therefore selected as the target of the study based on its proximity to the researcher and the relatively advanced state of its ICT industry. Andela and Arifu were selected as the companies to study based on their employees being vastly comprised of millennials and the accessibility of their staff (based on previous professional interaction). The ‘remote-first’ cultures of both companies further justified their selection since all staff required access to stable internet, a stipulation that HR functions in both companies had enforced with their employees contractually at the time of their employment. The study was quantitative and an online survey (that is, Survey Monkey) was used in data collection. The data collection was conducted between September 2020 and May 2021 during the COVID-19 pandemic, making all interactions between the respondents virtual.

**Table 1.1: Gross Domestic Product by Activity**

Year	Electricity & water supply	%	Wholesale and retail trade	%	Accommodation & restaurant	%	Transport and storage	%	ICT	%
2015	100,153		311,746		43,086		274,755		149,969	
2016	108,531	8	323,433	4	48,803	13	292,629	7	164,798	10
2017	116,084	7	342,056	6	55,776	14	313,749	7	182,984	11
2018	125,345	8	365,645	7	65,034	17	340,372	8	203,713	11
2019	134,106	7	389,900	7	71,745	10	366,814	8	221,552	9

% - Percentage Growth Year on Year

## 1.6 Significance of the Study

The results of this study give a detailed understanding of the relationship between companies' engagement strategies and actual employee engagement in the millennial workforce. The findings and recommendations of this study will be beneficial to talent management teams in various Human Resources departments as well as the directors of these companies. This is particularly salient as the ICT sector, particularly in Kenya, has been growing significantly for the past two decades, and HRM strategies must adapt to competitively address the changing face of the workplace for millennials in particular, and other generations in general in this field. This is important as the concept of career development for millennials is not comparable to that of preceding generations. This is greatest motivation for conducting this study.

In this direction, the most effective policies were identified, employee engagement variables determined and the two correlated for the sake of better understanding in a field that all stakeholders are finding the need for change. Scholars can use this research to further understand the millennial workforce and what they seek and may continue to seek from their careers and places of work. The study will help expand the depth of knowledge that exists on millennials, their mode of operations, in the labour market as they differ significantly from their predecessors. Lastly, this paper, especially in the African context, will go far in expanding policy innovation that will also equip policymakers to better adapt to the market, and improve the software development space in the economy.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

This chapter focuses on literature related to the engagement strategies employed in the workplace that are used to engage millennial employees. The first section will look at the theories related to this study. The second section looked at the empirical review of engagement strategies employed to engage the workforce namely: gamification, the use of enterprise social media, career development and having a work-life balance, as well as the scope of understanding of the millennial workforce. The variables were then operationalized, and the conceptual framework formulated.

### 2.2 Theoretical Review

Macey and Schneider (2008) identified multiple theories seeking to explain the concept of employee engagement in their significant literature review. They sought to give clarification to a term used in various contexts by practitioners and academics alike. For instance, (Hewitt Associates LLC, 2005, p. 1) stated that they “established a conclusive, compelling relationship between engagement and profitability through higher productivity, sales, customer satisfaction, and employee retention.” They gave context, and scope to the concept by identifying different facets of employee engagement in this manner: psychological state engagement; behavioural engagement; and lastly, trait engagement. This review aided in understanding the abstract construct of employee engagement while introducing a purview that no unifying theory had existed to guide research and practice. They stated, that, “although compelling on the surface, the meaning of the employee engagement concept was unclear. This was attributed to the ‘bottom-up’ manner in which the engagement notion had quickly evolved within the practitioner community.” (Macey and Schneider, 2008, p. 1).

They posited further that although HR practitioners had sought to exploit this concept, the academic community had not been as eager to engage empirically on the issue, failing to rigorously test the variables which underly the scope of the construct, with a few exceptions (May, Gilson, & Harter, 2004; Salanova, Agut, & Peiro, 2005). Even though there had been research on the matter regarding the term “engagement” with regards to employee attitudes, referencing Harter, Schmidt, and Hayes (2002), on “turnover” and “productivity”, these

employee attitudes did not conceptually reflect the entire scope of employee engagement. Thus, they argued for further development of the construct and its measurement.

In this direction, an effort was made to understand the key components of employee engagement by Meyer and Gagnè (2008). They sought to further explore the concept of employee engagement to bring forth a comprehensive approach to its study and practice. They did so by combining scholarly discourse that had preceded them and synthesized it to achieve a unifying theory. Their study followed the work done by Macey and Schneider (2008); whereas they believed much had been accomplished, they believed that they had failed to identify one unifying theory.

They argued that the best way to go about this was through the Self-Determination Theory (SDT) Ryan & Deci (2000), and its consequences which included the following: the Self-Concordance Theory (SCT, Sheldon & Elliot 1999), the Hierarchical Theory (Vallerand, 1997), and the Passion Theory (Vallerand et al., 2003). They noted that Macey and Schneider (2008) did in fact make allowance for the SDT and SCT in their expansion but argued that more could be utilized. In contrast, Meyer and Gagne's research went a step further to consistently demonstrate that individuals who were "engaged" in what they were doing also experienced greater physical and psychological well-being than those who were a-motivated or lack personal control (Ryan & Deci, 2000).

By their later study, (Deci & Ryan, 2008) had cumulatively developed four "mini-theories" that sought to address the variant, though related, issues on the effects of extrinsic rewards on intrinsic motivation. The research that led to SDT began with experiments conducted on the effects of extrinsic rewards on intrinsic motivation. This research was carried out over thirty years after the initial studies were conducted; much of the theory was developed via laboratory experiments and the results were also supported by applied research in field studies and clinical trials designed to engage with significant social issues.

The Cognitive Evaluation Theory looked at the effects of social environments on intrinsic motivation within an individual (Deci, 1975; Deci & Ryan, 1980) described contextual elements as "autonomy supportive (informational), controlling," and lastly "a motivating", and linked these contextual elements to the different motivations. The Organismic Integration

Theory (Deci & Ryan, 1985; Ryan & Connell, 1989) was concerned with the internalization and integration of values/ regulations and was formulated to explain the degree to which an individual may experience autonomy when engaging in extrinsically influenced activities as well as the processes through which people internalize the values of their groups. It highlighted the importance of how humans evolved inner resources for personality development and behavioural self-regulation in various social contexts. People chose these behaviours freely as they were integrated into and were congruent with the individual.

The Causality Orientations Theory (Deci & Ryan, 1985) was formulated to describe the individual differences in how people oriented themselves toward the social environment around them to support their own autonomy; garner control over their behaviour, or were a motivated in kind. This mini theory allowed for the prediction of experience and/or behaviour through an individual's prolonged exposure to a social context. The Basic Needs Theory (Ryan & Deci, 2000) was formulated to explain the relation between individuals' motivation and goals, and their psychological well-being. This was achieved by describing the relationship between the weight of values assigned to goals and the organisational styles used to achieve these goals (motivations in turn thence). This was used to describe the effect observed on the individuals' psychological health "across time, gender, situations, and culture." (Deci & Ryan, 2004. p. 10)

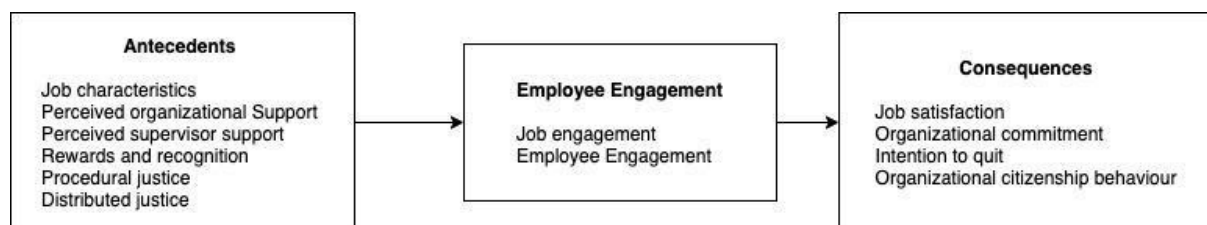
The Self-Determination Theory, a combination of the four mini theories, set off by assuming that all individuals had innate, natural and constructive tendencies to develop an ever more elaborated and unified sense of self. It proposed that people tended to forge interconnections within aspects of their own psyches as well as among those of other individuals (Deci & Ryan, 2004); human motivation and personality in social/professional contexts had differentiated motivations, in terms of being autonomous vis a vis controlled. The research that led to this theory began with experiments conducted on the effects of extrinsic rewards on intrinsic motivation. This research was carried out over thirty years after the initial studies were commenced; much of the theory was developed via laboratory experiments and the results were also supported by applied research in field studies and clinical trials designed to engage with the significant social issues.

In his qualitative study on the psychological conditions of personal engagement and disengagement at work, Kahn (1990) interviewed summer camp counsellors and employees of

an architecture firm about their moments of engagement and disengagement at work. The study focused on the conditions at the workplace in which people engage; they feel open enough to express their personal selves physically, cognitively, and emotionally, and when they disengage; they withdraw and defend their personal selves physically, cognitively, and emotionally. He found that there were three psychological conditions associated with engagement or disengagement at work: meaningfulness, safety, and availability, influenced by the individual and external sources of influence and further, when their organizations were more psychologically available to the employees. The study worked with the premise that people can use varying degrees of their selves in work role performances, which has implications for both their work and experiences. His definitions of ‘personal engagement’ and ‘personal disengagement’ worked to bring out that people needed both self-expression and self-employment in their workplaces.

Saks (2006) made strides in not only defining employee engagement but also in furthering Kahn’s (1990) model on understanding how to measure it. Saks further identified other variables yet to be studied namely, the human resource practices such as flexible work arrangements, training programs, and incentive compensation (Figure 2.1). In the study, he stated that future research should attempt to expound on the types of factors that are most important for employee engagement in different roles (e.g., job, organization, and group). Saks’ model was chosen for the study so as to measure the extent to which the factors or strategies that had an effect on employee engagement namely career development, work-life balance, the use of enterprise social media and gamification (independent variables).

**Table 2.1: Antecedents and Consequences of Employee Engagement Model**



## **2.3 Empirical Literature Review**

### **2.3.1 Career Development**

Career development as is explored and studied in this paper was guided by the Systems Theory Framework of Career Development as developed by Patton and MacMahon (2014 and 2018). Career development was defined as being a lifelong process of making choices from among occupations available in society (Patton & McMahon, 2014). Hiebert, Borgen and Schober (2010) defined it as the “life-long process of managing learning, work, and transitions in order to move toward a personally determined and evolving preferred future”.

The STF was presented as a framework of influences that described the content and process of career development. It provided a model from which to view the systems built by the individual and human resources practitioners that influenced an individual’s career development. The theory acknowledged three systems that influence the content of individuals’ career development: the Interpersonal (that is, the self-identification attitudes, values, and beliefs); the Social (that is, one’s values, beliefs, attitudes in social/professional contexts); and the Environmental/Societal (that is, historical oppression, government policies, workplace restructuring, socioeconomic attitudes, values, and beliefs).

It went on to acknowledge three principles that influenced the process of an individuals’ career development. One principle was the interaction of influences that occurs within the individual on one hand, and between the individual and their external environment which Patton and MacMahon defined as dynamic and recursive. Another was the function of change over time in an employee’s life, which with hindsight, is significant because one’s past influences shape present motivations and the interpretations of these events bring about future career possibilities/goals. Lastly, the function of chance, or unanticipated events, which works in broader systems/organizations and does affect an individual’s intrinsic systems.

The field of career development is evolving as both the nature of work and organisations are changing and shaping a new relationship between individuals and professional organisations in terms of career development. Organisations have become less rigid but not entirely fluid. Thus, individuals particularly in the millennial age-group are taking more control of their careers to seek internal satisfaction. Successful career development strategies must consider the needs of both the organisation and the individual. Therefore, it is important for

organisations to understand employee-related quality of work-life balance issues when developing career development policies (Yeo & Li, 2011).

A quantitative study on the career expectations of Millennials (Generation Y) by Maxwell, Ogden, & Broadbridge (2010) among 122 students in the Scottish hospitality industry found that there was a need for an appreciation of the strong and self-centred career focus in Generation Y and of their own inputs into their career development. For the respondents, the top priority was their determination to succeed and achieve upward promotions in their careers. The study further found that meeting personal goals, both as career entry expectations and long-term career aspirations, was as important as receiving good pay. Generation Y was found not only to have high initial career expectations and career aspirations, but also enjoyed challenging work and, particularly for women, sought out employment that had a fair employer who offered clarity and equality in career progression. Career development was therefore not a priority in and of itself but was considered as part of a combination of HR policies or strategies that this study analysed.

In a quantitative study conducted by Rashid, Asad, and Ashraf (2011) in the Pakistani Banking industry, it was found that cooperation among employees and the organization on career development led to both organizational and individual considerations and an increase in satisfaction. The study further stated that the 250 employees working in private commercial had a positive approach toward employee engagement based on the following Human Resource Management (HRM) factors: Employee Engagement, Human Resource Practices, Decision Making/Coordination Training and Career Development, Employee Performance Appraisals, Performance Reward Systems and Employee Involvement.

Ngobeni & Bezuidenhout (2011) conducted a quantitative study in South Africa on 115 academic, administrative, and technical staff found that in Tshwane University of Technology (TUT), the longer employees stayed at the university, the more lacking their career development, and an absence of career planning was. The study found that in order to retain the university's critical talent, staff should be nurtured and grown, and line managers should coach and mentor talented employees to occupy critical roles in future. 80% found that TUT allows them to perform at their best but 54% did not agree that they had had conversations

about their career path with their line managers. Lack of career development led to an absence of promotional opportunities.

Wachira (2013) conducted a qualitative study on the employee commitment of employees in Barclays Bank (now Absa Bank) in Kenya was conducted on a population of 3700 and a sample size of 175. 64.29% of the respondents were juniors, 33.57% of the respondents were middle management and 2.14% held senior management positions. The study found that only 25.84% of the respondents felt that career development was the best way an employer showed their interest in employee commitment. In the same study, 46.07% of the respondents favoured rewards and salary programs. This contradicts other studies that challenge monetary benefits as a viable engagement strategy to promote employee engagement and/or commitment. The study concluded that an employee who feels engaged will most likely be committed to the organisation.

The common theme in the above studies was that career development was positively related to employee engagement. In Kenya, contradictorily, salaries and other benefits were held at a higher importance than career development. This study aimed to measure the effect career development has on employee engagement, whether positively or negatively, in correlation to other engagement strategies.

### **2.3.2 Work-Life Balance**

Rosabeth Moss Kanter's seminal book (1977), *Work and Family in the United States*, brought the issue of work/life balance to the forefront of research and organizations. Rosabeth Moss Kanter's seminal book (1977), *Work and Family in the United States*, brought the issue of work-life balance to the forefront of research and organizations. In the 1980s and 1990s, companies began to offer work/life programs. While the first wave of these programs were primarily initiated to support women with children, today's work-life programs are less gender-specific and recognize other commitments as well as those of the family. Work-life balance initiatives are not only a U.S. phenomenon. Employees in global communities want flexibility and control over their work and personal lives.

Lockwood (2003) defined work-life balance as state of equilibrium in which the demands of a person's job and life are equal. Work-life balance initiatives created positive employer

branding, promoted being labelled as an employer of choice, foster organizational citizenship, and support diversity initiatives far across the organization's board. Building a strategic business case for work/life initiatives required considerable data that documented positive results on the balance sheet. The article found that an employer's commitment to work-life initiatives was influenced by the perception of whether such initiatives had a positive return on investment.

Gropel and Kuhl (2009), in their quantitative study on *Work Life Balance and Subjective Well Being*, explained work-life balance in the perspective of the well-being of both students and employees. Seventy-three (73) undergraduate volunteers (51 women, 22 men) were recruited through flyers around University of Osnabrück, Germany. Their mean age was 24.5 years (range 19–40 years). Seventy-nine people (45 male, 34 female) were recruited through flyers and posters offering individual counselling on personality development. Their mean age was 41.2 years (range from 23 to 57). In their research, they tested the hypothesis that a sufficient amount of time made available for the employee by the organization increased the respondents' well-being, as it helped in the satisfaction of their personal needs and aspirations. This was similar in students who also benefited from a work-life balance. Their research found that perceived sufficiency of time available for an individual's personal life and work exhibited the level of well-being experienced only if the individual's needs were fulfilled in the given time.

Yeo & Li (2011) conducted a qualitative study on positive and negative aspects of work and how this affected their perceptions of the quality of their work-life balance. The study also looked at how the quality of their work-life balance affected their career development decisions. Data was collected from an online discussion forum from 140 global, part-time MBA students. The study proposed that to achieve a work-life balance, four levels of need must be considered: the need for satisfaction from one's work environment, the need for satisfaction from one's job requirements, the need for satisfaction from supervisory behaviour and the need for one's satisfaction from ancillary programs offered in an organization. The quality of work-life and career development was important in helping managers evaluate their employees' cognitive response to job characteristics in consideration of the aforementioned and adopt the most appropriate measures to increase the significance of the employees' life at work as well as their prospects for career advancement.

A literature review conducted by Bedarkar & Pandita (2014) on the drivers of employee engagement found that Work Life Balance was an important driver of employee engagement. The ability of the employee to find time for work and family was a crucial factor to the success of their performance at the workplace. Mostly work life balance comprises flexitime, which permits the employees to vary their start and finish times provided a certain number of hours is worked; compressed work week, in which employees work a full week's worth of hours in four days and take the fifth off), working from home (telework), sharing a full-time job between two employees (job sharing), family leave programs (e.g., parental leave, adoption leave, compassionate leave), onsite childcare, and financial and/or informational assistance with childcare and eldercare services.

Presbitero, Roxas and Chadee (2015) conducted a study on 258 employees of Business Process Outsourcing (BPO) firms owned both domestically and by the US in Manila, Philippines. The study stated that work-life balance occurred when it was possible for an employee to be satisfied both at work and at home without one causing conflict with the other. Companies that allowed individuals to manage their own time provided the individual with the means to determine when to focus on each aspect of his or her life. The results showed that the fit between employee and organization values partially and positively mediated the effects of HRM practices on employee retention. Research on work-life balance suggested that organisations which not only have clear work-life balance policies but also promote a family-friendly work environment enjoy higher levels of employee retention (Beauregard & C. Henry, 2009).

Toward this end, there have been past studies solely dedicated to the financial impact of work-life programs on employees in general. One such study was conducted by the consulting firm Work-Family Directions (Work-Family Directions Media, 1997) with their research focused on work/life programs being run with a few their clients (for example, DuPont, Johnson & Johnson, Hoechst Celanese, IBM, and others). At DuPont, for example, employees who used the company's work-life programs were 45% more likely to agree strongly that they will 'go the extra mile' in their work and were least likely to feel overwhelmed or burned out in the dispensation of their duties. Data from Hoechst Celanese documented that "some 60% of those surveyed reported the ability to balance work with personal and family responsibilities was of great importance in their decision to remain with the company."

A study by Iqbal et al (2017) on the Impact of Employee Engagement on Work Life Balance with the Moderating Role of Employee Cynicism was conducted in the banking sector of Faisalabad, Pakistan with a sample size of 125 employees. The results uncovered challenges and explored ways in which employee engagement shaped employee's experiences. The study in the banking sector in Pakistan, found that not only was a work-life balance positively related to employee engagement, but that when employees had less time to rest and a larger workload, they were less engaged. These findings were confirmed by a literature review conducted by Shankar & Bhatnagar (2010) in Gurgaon, India. They stated that a work-life balance was at the core of HRD's major functions and that it was be a powerful leverage point for promoting individual and organizational effectiveness.

Kasau (2017) conducted a quantitative study that examined the relationship between work-life balance and employee performance in the Kitui County Government. The study sought to find the effect of leave policies, flexible working arrangements, welfare policies and family responsibilities on the performance of 207 employees. The findings found that there was a positive correlation between flexible work arrangements and employee performance as well as between family policies and employee performance. Therefore, the aim of this study was to not only prove that the presence of a work-life balance was positively related employee engagement by considering perceived flexibility and autonomy or freedom but to also measure its extent in comparison to other engagement strategies.

### **2.3.3 Enterprise Social-Media**

Enterprise Social Media can be defined as the collection of digital channels and tools used for communication. Heldman, Schindelar, & Weaver (2013) argued that a defining characteristic of all social media was their potential to facilitate engagement—the interactive, synchronous communication and collaboration among numerous professional participants via technology. It was characterized by a multi-way communication, at the same time but in various places. With the functionality available through social media, organizations were enabled to move from basic information dissemination native to traditional mass media to fully interactive information sharing dialogues. In this direction, according to (Dolphin, 2005), internal communication may be defined as communication between an organization's leaders and its employees. It is “social interaction through messages” (Kalla, 2005, p. 303) and reflects the

management's ability/willingness to build relationships between all employees, at all levels within an organization (Welch & Jackson, 2007).

In a literature review conducted by Sharma and Bhatnagar (2016), enterprise social media was seen as not only a social networking platform for the employees of an organization but also a fantastic way to connect and involve employees in organizational objectives such as idea generation, problem-solving and participative decision-making and thence, can be a strategic employee engagement initiative. Their study, which focused on the role of enterprise social media as an internal workplace tool for the purpose of improving employee engagement, found that enterprise social media should be adopted for more than employee recruitment and organization branding. They found that it could be utilized to enhance and tackle the challenges of employee coordination, communication, and collaboration, across not only local teams, but across the globe, thus creating new social networks, solving work and non-work-related issues. Discussion forums, blogs, and webinars for instance, creates and expands the ability for colleagues/employees to share new ideas and provide valuable feedback on organizational policies.

According to Goessling (2017), social media spans a wide range of platforms and services, such as blogs, discussion boards, chat rooms, forums, consumer product or service rating websites and most notably, social networking sites. In his research study on the retention of generations X, Y and Z in the modern workplace, he stated that the advent of younger generations in the workplace, and their attachment to technology, including social media, as part of their everyday lives, it was imperative that organizations incorporated enterprise social media as part and parcel of their HRM programs especially in regard to the recruitment and retention of employees.

It is critical for internal communication professionals to get involved immediately with employees by orienting them into the organization, developing their professional skills, asking for feedback, and taking time to listen to their concerns, and remain as involved as possible (Mishra, Boynton & Mishra, 2014). They conducted a qualitative study on how internal communication drives employee engagement. They interviewed six PR executives via telephone from several industries on their thoughts on the role communication played in employment. The authors found that all the executives interviewed believed internal

communication was an important objective in employee engagement. When asked to define their job or their primary role, three of the six executives interviewed, Mary Beth, Keith, and Sharon mentioned “employee engagement” was one of their top priorities.

In an article authored by Lee (2013) it was found that social networking revolutionized the way a company connects, communicates, engages employees, and achieved its overall business goals. It, however, was not a one-size-fits-all approach for a company adopting social networking in the workplace. He further found that because comparatively few studies on social networks in the workplace existed, some important questions regarding issues such as the relationship between social networks and work performance, and the ROI (Return On Investment) of social networks, remained unanswered.

Chen and Wei (2019) looked at the negative effects of using social media in the workplace. The focus of their quantitative study was on how the use of enterprise social media influenced employees’ perceived overload causing enterprise social media-related strain. The study was conducted in China, surveying 282 social media users. They found that too much social-related ESM (Enterprise Social-Media) use may result in information and social overload because too many social connections among employees reduce the boundaries between work and social roles. Such reduction increases non-work communication and gossip according to Leonardi et al. (2013). More engaged employees can communicate and manage their work tasks more effectively, align their work goals more with the overall organizational goals and strategies, and develop more recognition and get better compensation. If enterprise social media leads to more engagement, then there will also be improvement in areas for such as: productivity, profitability, safety, customer satisfaction, turnover, and absenteeism (Haddud et al, 2016).

Cilliers et al (2017) found that although employees were already using ESM make use of social media for problem-solving and communication purposes already in the workplace, organisations should allow their employees to help manage their reputation on social media. Their quantitative study was conducted to identify employees’ behavioural intention to make use of social media in the workplace at a South African traditional higher education institution. A total of 134 questionnaires were returned, yielding a response rate of 67%. They found that it was possible that employees used social media as a ‘last resort’ when they were unable to contact a colleague or needed assistance and could not use another channel in the organisation.

Although employees were using social media to assist them in the workplace, they did not consider these to be legitimate ‘work tools.’ This explained the lack of a relationship between problem-solving, communication and behavioural intent to use social media in the workplace.

Mwituria (2015) initially sought to study the influence that social media had on the employees of NIC Bank Head Office. Her descriptive research study focused 50 people and followed their social media habits while at work. Social media was widely in use both by employees and by NIC Bank. Employees access social media multiple times a day on their devices in spite of the restrictions and existence of a social media policy. This access was through their smart phones, tablets, and other personal devices for a duration of between 1 and 2 hours. NIC Bank actively used social media to reach customers, promote and market its products. The study found that contrary to expectation, the existence of a policy did not completely deter the use of social media during working hours. The findings additionally revealed that employees were interrupting work to access social media. Though a strong relationship between social media use and employee productivity was lacking, the study found that they use of multiple strategies concurrently would work towards this end.

Weru (2015) aimed to understand the impact of social media usage on employee productivity at British American Tobacco Company Kenya Limited (BAT). The study was descriptive with a total population of 313 staff based at the Likoni Road branch. The population was identified through the human resource databases within the organization. One recommendation was that, for the organization to reap the benefits of social media on employee productivity, there should be deliberate attempts and guidelines by the organization to put strategies that target enhancing employee productivity with social media. This would enhance innovative behaviour, employee commitment and employee job satisfaction.

#### **2.3.4 Gamification**

Huotari & Hamari (2012) defined a game as a rule-based formal system with a variable and quantifiable outcome, where different outcomes were assigned different values, and when the player had to exert effort to influence the outcome, they felt attached to the outcome. In their study on the marketing industry, they moved to expand the understanding and application of the concept to incorporate a process of enhancing a service with affordances for gameful experiences in order to support user's overall value creation. They proposed a new definition

of the concept which emphasised “the experiential nature of games and gamification, instead of the systemic understanding”. There was relevance both for industry practitioners as well as for academics to study how gamification can fit in the body of knowledge of existing service literature since the goals and the means of gamification and marketing had a significant overlap.

When defining gamification, Frang & Mellstrand (2012) called it “the use of game thinking and mechanics in non-game contexts”. Recent analytics had predicted that more than 70% of the world’s 2000 largest organisations would have at least one gamified platform by 2014, which indicated that gamification was important in the future of IT-strategy and digital marketing. The purpose of their study was to increase the knowledge of enterprise gamification, and to develop a proof of concept on how to apply gamification in Cybercom’s (an infocom consultancy company located in Sweden) internal competence model; this would increase the usage of and the employees’ understanding of the model. They found that research had been done in the psychological area of motivation over the years, although psychological research was quite rare in the context of gamification. The study used a combination of a qualitative and a quantitative approach to accurately capture the complex relations of the employee’s motivations and obstacles for using the competence model, which was the employee development process. The sample size was comprised of 270 employees working for one of the company’s branches, to save on cost for all involved. The analysis showed that the employees of Cybercom were motivated by self-actualisation but not by competition or status, meaning that the game layer needed to focus on the individual development and not by comparing progress.

The implementations of gamification have been used at the core of business’ product offerings in a variety of sectors, such as in education (Khan Academy), health (HealthMonth), task management (EpicWin), sustainability (Recyclebank), crowdsourced science (FoldIt), and user-generated content for programmers (StackOverflow) (Deterding, 2012). It has also been used to assist other companies with their already existing, and projected, service provision experiences (such as Badgeville) (Hamari, Koivisto & Sarsa, 2014).

According to Dale (2014), companies deploying gamification fell into two main categories: Consumer and Service Organizations that were looking for improvements to their loyalty solutions, and companies that wanted to find the right employee engagement tools. His article

had a critical look at the potential of gamification as a business change agent that can deliver a more motivated and engaged workforce. He used a critical literature review to analyze the companies that had already gone in this direction: examples he found of American companies in the ICT sector that used gamification to improve their businesses and the environment were Google for instance, where engineers were able to spend an in-house currency known as ‘Goobles’ on server time – often a scarce resource at Google.

SAP (a German multinational software corporation) created a game to encourage its workers to carpool to reduce the company’s carbon footprint. DirecTV (an American direct broadcast satellite service provider) introduced a gamification portal to encourage knowledge-sharing through ‘lunch and learn’ presentations. His study found that engagement needs to focus more on emotional experience in order to keep people with short attention spans properly interested. When done well, gamification can be used to shape user interactions and to push people to go further, to build up streaks of learning, and to condition behaviour.

In their paper, Huotari & Hamari (2014) dove into whether gamification worked. The literature review explored peer-reviewed empirical studies on gamification and results found that in most cases, gamification produced positive effects and benefits towards employee engagement. They created a framework for examining the effects of gamification by drawing from the definitions of gamification and the discussion on motivational affordances. It covered independent variables (examined motivational affordances), dependent variables (examined psychological/behavioural outcomes from gamification), the contexts of gamification, and types of studies performed on the gamified systems. The review found that gamification provided positive effects greatly dependent on the context in which the gamification was being implemented, as well as who used it. Gamification was however found not to work in a utilitarian service setting, but instead engagement by gamification depended on several factors, such as the motivations of users. This was similar to the findings of an earlier study conducted by Hamari (2013).

Webb (2013) stated that gamification was a powerful way to increase employee engagement and productivity within an enterprise software system. In her article on how and when gamification works, she noted that successful gamification required a thorough understanding of the end user of the system, which would have to be design based on the user’s motivations

and goals, using testing models during development, and following release. A gamified user experience needed to be reviewed, evaluated, and updated regularly to ensure that it continued to meet the goals of both the users and the companies. A key reason that organisations were interested in gamification was its ability to increase engagement. Engaged employees were highly desirable as they are more energetically and effectively connected to their work activities than unengaged workers and rated themselves as better able to deal with job demands.

In a quantitative study conducted on the use of gamification in South African advertising agencies by Rivers (2016), gamification was found to be useful in creating interest in tasks, training, and going above and beyond job descriptions to achieve organizational citizenship. Her study conducted on 211 employees from various agencies in the country found that agencies that incorporated gamification into structure had employee engagement levels, affective and intellectual engagement levels, social engagement levels, increased organizational citizenship behaviour as well as a lower intention to quit. Gamification also had a highly significant impact on two consequences of employee engagement: increased organisational citizenship behaviour and decreased intent to turnover.

Oliver (2017) focused on gamification in South African classrooms in his article. He argued that gamification in education was still a very new concept in South Africa. Being a 21st-century invention, it had already established itself in the world within the environs of the corporate market, marketing, training, and the social world. The burning question for South Africa was whether gamification could enhance a module or course on the level of higher education enough that an educational institution cannot do without it anymore, knowing that they were working with students belonging to the 'Digital Wisdom generation'.

### ***2.3.5 Understanding The Millennial Workforce***

Millennials are known for their different views on life compared to generations before them. This divergence occurred because of a mix of numerous factors, such as the accelerated speed of everything, the multiplicity of communication devices, increased traveling opportunities, and the greater amount of parental nurturing they received (Holt, Marques, & Way, 2012). They conducted a qualitative study, which involved a randomly accessed convenience sample of 150 participants in the Los Angeles metropolitan area via anonymous paper-and pencil

method; which showed that millennials have been raised with the optimism that all things are possible through collaboration and solidarity. The idiosyncratic traits of this generation are enduring yet reflect somewhat of a detour from the more traditional behaviours of their predecessors. Their study found that given the changed needs of today's corporations and communities, the increased awareness about environmental and stakeholder care, and the increase of global competition, there is tremendous need for workers who dare to think creatively and critically and understand the need to resolve problems in innovative ways. Given their affinity for electronic games, poetry, music and the arts, the millennials could be a timely and much needed asset to the urges of the corporate world.

Hoole & Bonnema (2015) stated that millennials had been characterized as being adaptable. The aim of their study was to determine whether there is a relationship between work engagement and meaningful work and whether there are significant variances between the levels of work engagement and meaningful work between different generational cohorts. The Utrecht Work Engagement Scale (UWES) and Psychological Meaningful Scale (PMS) were administered to 261 participants across several financial institutions in Gauteng, including three generational cohorts (Baby Boomers, Generation X and Generation Y). Millennials were described as being more comfortable with technology and more prone to multitasking, collaborative work, as well as having a more integrated view of the organizational hierarchy than any previous generational cohort. Their findings suggested that older employees are still very valuable resources and can contribute significantly to the organisation's success but have different needs and values than other age groups. Customised engagement strategies tailored towards different generational cohorts might be more beneficial.

In recent years, much of the focus in terms of generating engagement had been aimed in the direction of financial rewards and other benefits; some organisational experts were of the opinion that a shift is occurring towards meaningful work instead of monetary rewards as the driver of engagement. The changing nature of the work landscape also suggested that generational cohorts experience work engagement and meaningful work differently. Understanding these complexities was important in creating solutions towards improving levels of engagement and meaningful work. They had an expectation for equal participation and recognition when working with diverse teams. Members of this generation were

increasingly gaining not only positions in the workforce, but were also achieving positions of leadership (Murray, 2011).

Trees (2015) stated that as Millennials joined the workforce in large numbers and employers were looking for ways to attract the best and brightest of this generation, get them excited about their work and keep them from immediately jumping ship for new opportunities. In her paper, she sought to present enterprise social networking and gamification as two potential tools to help organizations engage millennial employees in collaboration and learning. She found that by providing near-immediate access to information and answers, enterprise social networking helps millennials learn the ropes at their new workplaces, giving them direct access to more knowledgeable colleagues who could assist and mentor them, and help them improve their business outcomes by reusing knowledge and lessons learned across projects. Younger workers also harnessed the power of social networking to create a sense of belonging and build their reputations in large, dispersed firms, where it was particularly difficult for them to gain visibility. The rush to gamify the enterprise was, at least in part, a reflection of employers' desire to satisfy millennials and make them feel connected to a community of co-workers. Although games appeal to a wide range of age groups, millennials grew up with digital interaction and tend to prefer environments that emphasize teamwork, social learning and frequent feedback – all of which can be delivered through gamification.

Although pay and perks play an obvious role in this effort, many millennials have shown themselves to be motivated by less tangible differentiators, such as a supportive and collaborative work environment, ample professional development opportunities and the ability to make a difference to their organizations.

According to Jenkins (2017), the millennial lifestyle was one in which they had a “the never-offline and always-available” workplace. To them, turning off work at 5:00 p.m. was an antiquated practice. Due to their always-on, and integrated approach to life, millennials see no problem with blending work and life. Checking their e-mail before they got out of bed in the morning, to then shopping online while at work, and then exchanging texts with their managers after 8:00 p.m., to then wake up and catch up on their e-mails again on Sunday afternoon has been seen to be native to them. He argued that every generation sought a healthy work-life balance, but it was millennials who most demanded it from their employers. “In today's

employee market, creating a work-life balance for millennials is a compelling competitive advantage.” He further posited that their lifestyles were significantly different from their preceding generations, thus their impetus in career development was also significantly different.

The entry of generation Y employees into the labour market has added to the growing complexity of the Kenyan and global workforce (Tubey et al, 2015). This complexity was reflected in their values, beliefs, ethical considerations, cultural, ethnic, and religious affiliation, gender, and sexuality among other diversities. Interpreted differently, these diversities had implications on recruitment and selection procedures, job design, reward mechanisms, motivational programmes, productivity, and overall performance of organizations. Their research studied attitudes, hopes, aspirations, dreams, and ambitions of generation Y (also referred to as millennial) employees in Kenya in a bid to understand their employment expectations. 105 respondents were sampled using stratified and simple random sampling from a population of 315 fourth year finalists in the School of Human Resource Development, Moi University. This constituted a major limitation in the study as findings could not be generalized to finalists in other universities in Kenya. In addition, the opinions and views constituting the findings of the study belonged to the last wave of the millennial generation (1990- 1995), according to The HR Specialist (2014), hence may not apply to the millennials in earlier age sets. What remained was for employers to figure out the best possible ways and means of attracting, motivating, and retaining this diverse and complex generation that increasingly became a formidable force in the workplace in Kenya and around the world.

### ***2.3.6 Understanding Employee Engagement***

Baumruk (2004) referred to engagement as the energy and/or the passion employees harbour for their jobs and their employer, which results in an emotional and intellectual commitment to their organization. Richman (2006) described engagement as the driving force for an employee to use his/her discretionary efforts, experience, and energy, to directly benefit the employers without any explicit assurance of personal gain. His study examines the relationship of perceived workplace flexibility and supportive work–life policies to employee engagement and expectations to remain with the organization (expected retention).

The results revealed that perceived flexibility and supportive work–life policies were related to greater employee engagement and longer than expected retention. Employee engagement fully mediated the relationship between perceived flexibility and expected retention and partially mediated the relationship between supportive work–life policies and expected retention. Both formal and occasional use of flexibility were positively associated with perceived flexibility, employee engagement, and expected retention. These analyses provide evidence that workplace flexibility may enhance employee engagement, which may in turn lead to longer job tenure.

Truss et al (2006) defined employee engagement as the ‘passion for work’, which was a psychological state seen to encompass the three dimensions of engagement discussed by Kahn (1990) i.e., meaningfulness, safety, and availability. The review indicated that there were more employees who were disengaged or not engaged than there are engaged employees in the UK. Despite this, many organisations believed that engagement was a dominant source of competitive advantage. Results from research organisations and corporate results demonstrated there may be a strong link between engagement, employee performance and business outcomes. The key drivers of employee engagement identified include communication, opportunities for employees to feed their views upwards and thinking that their managers are committed to the organisation.

Work engagement can be defined as a positive and fulfilling state of mind that is characterised by three key components: vigour, dedication, and absorption (Schaufeli, Salanova, Gonzalez-Romá, & Bakker, 2002). Engagement is considered to be the antipode of burn out with the core engagement dimensions of vigour and dedications considered the direct opposites of the core burnout dimensions of exhaustion and cynicism respectively (Maslach, Schaufeli, & Leiter, 2001). The relationship between engagement and performance is substantial.

Alias, Noor, & Hassan (2014) found that employee engagement mediated the relationship between talent management practices and employee retention. This supports Saks’ Model since employee retention is the positive representation of intention to quit. The talent management practices studied were managerial support, career development and rewards (and recognition). This study shows the positive impact of career development on employee engagement. In their study, Kumar and Swetha (2011) recommend that future research should flesh out the types of

factors that are the most important for engagement such as flexible work arrangements, training programmes, and incentive rewards in different roles, jobs, organizations, and groups.

Nyang'ori (2017) sought to examine Human Resource Management (HRM) strategies that influenced millennial engagement at the workplace. The study was guided by objectives that were set to: determine the influence of job design in engaging the millennial workforce at the workplace, examine the influence of career management opportunities in engaging the millennial workforce at the workplace, and determine the influence of incentives in engaging the millennial workforce at the workplace while focusing on OnMobile Global Limited Kenya. A descriptive research design was used to explain the strategies that the human resource (HR) department used to motivate its millennial employees; the population consisted of all employees numbering 245. The study indicates that having a continuous training and development throughout a career kept employees engaged with the company, and a pleasant working environment facilitated employee engagement with the organization.

Trust and justice were important to employees in terms of creating a pleasant working environment which ultimately enhanced their engagement as well as having flexible working hours. OnMobile Global employees did not use the work-life balance programs because of poor communication about the program availability and improper implementation, and there was subtle negative communication from managers and co-workers towards employees that used flexi-time programmes in their job. The study found that employees regarded jobs that were high in skill variety more challenging as this enhances their personal development and growth. It further concluded that millennial employees found standardized jobs unfulfilling, and they would rather work on jobs that require them to use their own ideas and knowledge. The study recommended the organization to have a clear and concise communication of all millennial employee engagement programmes available, to ensure its employees made use of them.

### ***2.3.7 Different states of Employee Engagement***

Employee engagement can be conceptualized as a behaviour, directly observable at work. This is referred to as the discretionary effort an employee puts into their work (Richman, 2006). The pitfall of using effort, however, as an indicator of employee engagement is its subjectivity. Macey & Schneider (2008) challenged the operationalization of effort as duration, intensity, and direction because they can be misinterpreted as time commitment and work intensity. The

study proposes defining engagement as the use of “extra effort”, that is, doing more than usual. In this view, engaged employees are more invested in their roles, making time spent the variable used to measure the extent of their engagement. Employee engagement can also be seen as a psychological state. In this case, it is viewed as some form of absorption, attachment, and/or enthusiasm. Operationally, the measures of engagement represent job satisfaction, organizational commitment, psychological empowerment, and job involvement (Macey & Schneider, 2008). The study concludes that engagement as a state signifies “*high levels of involvement (passion and absorption) in the work and the organization (pride and identity) as well as affective energy (enthusiasm and alertness) and a sense of self-presence in the work*” (Macey and Schneider, 2008, p 27).

Building on the two states above, employee engagement can therefore be viewed as a behaviour that extends beyond usual or expected performance in the workplace, conceptualized as organizational spontaneity (Organ et al, 2006), role expansion and proactive behaviour (Crant, 2000), and personal initiative (Frese & Fay, 2001). To this end, engagement has to do with adaptive and innovative performance and in that sense not usual or typical. Engagement is above and beyond an employee’s simple satisfaction with his/her employment arrangement or basic loyalty to their employer—characteristics that most companies have measured for many years. Engagement, in contrast, is about passion and commitment—the willingness to invest oneself and expend one’s discretionary effort to help the employer succeed. (Macey & Schneider, 2008). The three states introduce various ways of operationalizing employee engagement, thus giving the study multiple ways of measuring employee engagement. These are expounded upon in the next section.

### ***2.3.8 Measuring Employee Engagement***

Thackray (2001) from Gallup built the Q12 survey to analyse employee engagement. Comparisons of engagement scores among employees reveal that those with high scores exhibit lower turnover, higher sales growth, better productivity, better customer loyalty among other manifestations of improved performance. The engagement index slots people into one of three categories. **Engaged Employees** work with passion and feel a profound connection to their company. **Not-Engaged Employees** are essentially “checked out”. They are ‘sleepwalking’ through their workday. **Actively Disengaged Employees** are not only unhappy at work; they simply act out their unhappiness. Below is the Q12 Index to measure Employee Engagement:

### The Q12 Index

1. Do you know what is expected of you at work?
2. Do you have the materials and equipment to do your work right?
3. At work, do you have the opportunity to do what you do best every day?
4. In the last seven days, have you received recognition or praise for doing good work?
5. Does your supervisor, or someone at work, seem to care about you as a person?
6. Is there someone at work who encourages your development?
7. At work, do your opinions seem to count?
8. Does the mission/purpose of your company make you feel your job is important?
9. Are your associates (fellow employees) committed to doing quality work?
10. Do you have a best friend at work?
11. In the last six months, has someone at work talked to you about your progress?
12. In the last year, have you had opportunities to learn and grow?

The Engagement Index (JRA, 2007) is another measurement tool that has been tested in New Zealand since its inception in 2000. In the questionnaire, the six items of measurement are:

1. I look for ways to do my job more effectively.
2. Overall, I'm satisfied with my job.
3. I take an active interest in what happens in this organization.
4. I feel inspired to go the extra mile to help this organization succeed.
5. I feel a sense of commitment to this organization.
6. Overall, I would recommend this organization as a great place to work.

The Corporate Leadership Council (2009) uses the following four questions:

1. I am proud to work at COMPANY.
2. Overall, my satisfaction with COMPANY is high.
3. I would recommend COMPANY as a great place to work.
4. If offered a similar position and compensation at another company I would stay at COMPANY.

The different tools above show a recurring theme, the well-being of the employee during their time at their respective organizations. The focus is not on the profitability of the organization

but on how the employees feel about working in them. These tools have been used to develop the questionnaire used in this study (Appendix 1).

#### **2.4 Summary of the Literature Review**

A complex and expansive concept, engagement is influenced by many factors—from an organization’s culture, its communication strategies and the managerial styles used to sow trust and respect, leadership, and company reputation (Kumar & Swetha, 2011). The scope of employee engagement is evolving as both the nature of employment itself and organizations change. These changes have and continue to create an entirely new relationship between individuals, in terms of career their personal development, and companies, in terms of creating value for their employees. Even in this direction however, organisations have become less rigid but not entirely fluid. This can be attributed to a gap in the understanding that practitioners and academicians of HRM have as a new workplace environment continues to open up. (Yeo & Li, 2011).

As both parties work towards this goal, engaged employees may be a key to competitive advantage. Companies that understand the factors and conditions that heighten employee engagement in the workplace stand to accomplish goals that competitors will find very difficult to imitate. A high level of employment engagement in both domestic and global organizations go to promote the retention of staff, foster customer loyalty and on the whole improve the organizations value and performance (Kumar & Swetha, 2011). In this direction, individuals, particularly in the millennial age-group, are taking more control of their careers to seek internal satisfaction. Successful career development strategies must consider the needs of both the organisation and the individual. Therefore, it is important for organisations to understand employee-related quality of work-life balance issues when developing career development policies (Yeo & Li, 2011).

Haddud et al. (2016) found that more engaged employees can communicate and manage their work tasks more effectively, align their work goals more with overall organizational goals and strategies, and develop greater recognition and get better compensation. If the use of internal social media leads to more engagement, then it follows that there will be improvement in corresponding areas such as: productivity, profitability, safety, customer satisfaction, turnover, and absenteeism. Webb (2013) stated that gamification was a powerful way to increase

employee engagement and productivity within an enterprise software system. In her article on how and when gamification works, she noted that successful gamification required a thorough understanding of the end user of the system, which would have to be a design based on the user's motivations and goals, using testing models during development, as well as after its release.

Therefore, employee engagement has been the focus of various studies as academicians and practitioners move to solidify their understanding of the ever-changing workforce. HRM practices have evolved over time from personnel management to talent acquisition and management. This shows a progression from a company's focus on the bottom line, to the wellbeing of their staff.

## **2.5 Research Gap**

None of the studies reviewed targeted the employees of the Software Development Industry, such as those of Shanafelt et al. (2015) that targeted physicians and Presbitero et al. (2015) that targeted employees of the Business Process Outsourcing (BPO) Firms. Further, the majority of the studies found on career development were foreign, conducted in countries such as Pakistan (Rashid, Asad & Ashraf, 2011) and Scotland (Maxwell, Ogden & Broadbridge, 2010), while the study (found and) explored in Kenya was in conducted in the banking sector (Wachira, 2013). Studies on work-life balance, similarly, were in Germany (Gropel & Kuhl, 2009), the Philippines (Presbitero et al., 2015), USA (Work-Family Directions, 1997), Pakistan (Iqbal et al., 2017) and India (Sharma & Bhatnagar, 2016). Kasau (2017) conducted a study in Kenya but targeted the Kitui County government. The studies highlighted the gap that the findings were not closely related to this study, by way of region and profession.

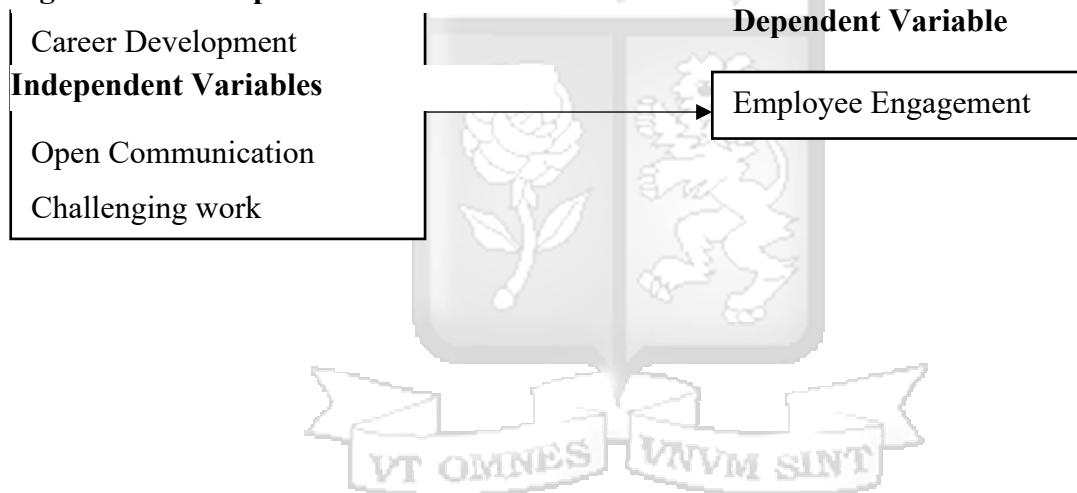
Additionally, not enough studies targeted the millennial workforce, but instead studied either much older, or much younger populations. This is seen in the study conducted by Ngobeni (2011) where majority of the employees interviewed had worked for between 16 and 20 years (64%) and 26 and 30 years (60%) making them Baby Boomers. Maxwell et al. (2010) targeted hospitality students in Scotland, who were new to the workforce (Generation Z). One other gap is that though companies in Africa are also making strides in HRM, little literature can be found on the use of enterprise social media and the concept of a work-life balance, which are

relatively new concepts in the workspace. Gamification, as well, was mainly studied on the grounds of improving educational outcomes but not in the workplace setting (Oliver, 2017).

## 2.6 Conceptual Framework

The four strategies expounded on in the literature review have been illustrated and identified as independent variables in the study. These are: career development opportunities, a work-life balance, enterprise social media and gamification. Figure 2.1 is adapted from Saks' (2016) study on job engagement and organizational engagement where procedural justice, rewards and recognition and organizational support led to employee engagement. In this study, however, the focus was on specific antecedents and the extent of the effect they had on employee engagement.

**Figure 2.1: Conceptual Framework**



## **2.7 Hypotheses and Propositions**

### ***2.7.1 Career Development strategies foster employee engagement***

Individuals particularly in the millennial age-group are taking more control of their careers to seek internal satisfaction. Successful career development strategies must consider the needs of both the organisation and the individual. It is important for organisations to understand employee-related quality of work-life balance issues when developing career development policies (Yeo & Li, 2011). Career development is therefore not a priority in and of itself but is considered as part of a combination of HR policies or strategies that this study analysed.

In a quantitative study conducted by Rashid, Asad, and Ashraf (2011) in the Pakistani Banking industry, it was found that cooperation between employees and the organization on career development led to both organizational and individual considerations and an increase in satisfaction. Respondents responded favourably to employee engagement based on the following Human Resource Management (HRM) factors: Decision Making/Coordination Training and Career Development among others.

*Hypothesis 1: Career Development is positively related to Employee Engagement*

### ***2.7.2 The presence of a work-life balance leads to engaged employees***

While the first wave of work-life balance programs were initially and primarily created to support women with children, today's work-life programs are less gender-specific and recognize other commitments as well as those of the family. Work-life balance initiatives are not only a western phenomenon, employees in the global community also want flexibility and control over their work and personal lives (Moss, 1977). Work-life balance initiatives create positive employer branding, promote being labelled as an employer of choice, foster organizational citizenship, and support diversity initiatives far across the organization's board. Building a strategic business case for work/life initiatives required considerable data that documented positive results on the balance sheet (Lockwood, 2003).

*Hypothesis 2: Work-Life Balance is positively related to Employee Engagement*

### ***2.7.3 Open and Frequent Communication leads to engaged employees***

It is critical for internal communication professionals to get involved immediately with employees by orienting them into the organization, developing their professional skills, asking for feedback, and taking time to listen to their concerns, and remain as involved as possible (Mishra, Boynton & Mishra, 2014). More engaged employees can communicate and manage their work tasks more effectively, align their work goals more with the overall organizational goals and strategies, and develop more recognition and get better compensation. Haddud et al. (2016) posited that enterprise social media leads to more engagement in the organization, and thus likely leads to similar improvements in areas such as: productivity, profitability, safety, customer satisfaction, turnover, and absenteeism.

*Hypothesis 3: Enterprise Social-Media is positively related to Employee Engagement*

### ***2.7.4 A fun and challenging environment leads to engaged employees***

Gamification was touted to immerse more enterprise users more deeply in business processes and tasks. It borrowed heavily from interactive and reward and recognition elements from online games, and – if done correctly – maps them to business goals to drive engagement, interactivity, participation, and (hopefully) better results. The thinking was simple: the more interesting it is, the more likely people are to engage (Dale, 2014). Webb (2013) stated that gamification was a powerful way to increase employee engagement and productivity within an enterprise software system. In her article on how and when gamification works, she noted that successful gamification required a thorough understanding of the end user of the system, which would have to be design based on the user's motivations and goals, using testing models during development, and following release.

*Hypothesis 4: Gamification is positively related to Employee Engagement*

## 2.8 Operationalisation of Variables

The independent and dependent variables have categorized under the sub measures and question examples shown in Table 2.2.

**Table 2.2: Operationalisation of Variables**

<b>Variables</b>	<b>Operationalization</b>	<b>Item Example</b>
<b>Dependent</b>		
Employee Engagement	Cognitive Involvement	I think the most important thing that happened to me is involvement in my work/job.
	Emotional Involvement	The major satisfaction in my life comes from my work/job. I feel proud of the work I do.
	Behavioural Involvement	I am proud to introduce myself with my job title. I speak positively about the organization when interacting with others. I have no intention to resign from my job.
<b>Independent</b>		
Career Development	Skill Improvement	I am satisfied with the investment my company makes in training and education.
	Future Setting	My manager and I have discussed my career goals.
Work-Life Balance	Flexibility	Flexible working hours are important to me.
	Freedom versus Renumeration	A work-life balance is more important than a good salary.
Enterprise Social Media	Open Communication	The communication function within the organisation sends messages frequently
	Organizational Awareness	I feel connected to the organisation's goals due to the use of an enterprise communication platform
Gamification	Challenging work	If my job is challenging and gives me a sense of responsibility, I will perform even if the salary is not as good as a perceived equal.
	A fun environment	I enjoy the work I do.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter outlined the research design, population and sampling, data collection methods and tools, data analysis techniques, issues of validity and reliability. This chapter will also cover ethical considerations for the study.

### 3.2 Research Design

The purpose of this research was to evaluate the effect that the engagement strategies (career development, work-life balance, enterprise social media and gamification) had on employee engagement. The study was quantitative so as to determine the extent to which the four (4) engagement strategies affected employee engagement. This was based on previous studies conducted by Alias, Noor & Hassan (2014) and Iqbal et al (2017). A questionnaire was meant to evaluate the worker's engagement. To investigate layout is depending on both equally qualitative and quantitative strategies. Using equally qualitative and quantitative approaches may help to answer the research questions and supply knowledge of the investigation objective. Quantitative exploration is normally regarded as extra formalized and structured than qualitative research (Creswell, 1994). Qualitative study is mostly seen as really near to the information source and gives a more holistic watch, which makes it possible for elevated knowledge. The justification for this is that it (quantitative research) explicitly specified *what* was measured in order to uncover patterns such as behaviour, motivation, emotion, and cognition. In this way, quantitative data collection was much more structured than qualitative methods (Saunders et al, 2015).

### 3.3 Population

Nzoya (2018) listed 283 software development firms in Kenya. This was the same population used when understanding the effect of engagement strategies on millennial employees. For this study, a total of two (2) companies were targeted to constitute the representative sample. These are: Andela and Arifu. The companies were selected due to their similarity in services offered as well as my own access to their staff. They are both software development firms in Kenya with a majority of millennial employees in their number. Arifu and Andela data was retrieved from their respective HR departments. The total population for this study, N, was 430 (Figure 3.1).

**Table 3.1: Study Population**

<b>Company</b>	<b>Population (N)</b>
Andela	336
Arifu	34

### **3.4 Sampling**

The sample of the study, denoted by  $n$ , was determined using Slovin's formula. Slovin (1960) stated that  $n = \frac{N}{1+N(e^2)}$  where  $n$  = Sample size,  $N$  = Total population and  $e$  = margin of error. For this study, the confidence level is 95 % (which gives a margin of error of 0.05). The sample size calculated as 189. Based on the studies conducted by Alias, Noor, & Hassan (2014), as well as Rivers (2016), a convenience sampling method was used to choose the studies sample since this was fast and inexpensive to use.

The study was undertaken during the height of the COVID-19 pandemic outbreak in the capital, Nairobi. This further necessitated the most efficient yet productive sampling method to be utilized. Due to the fact that convenience sampling requires that the most available primary data source is surveyed, two aforementioned caveats were made: that all respondents were millennials and secondly, that they worked in the software development industry.

### **3.5 Data Collection Methods and Tools**

The study was based on primary data that was collected from respondents directly by administering a comprehensive questionnaire. Whereas a questionnaire collects data at a single point in time, the Motivation Landscape is ever-changing, and current data was, and is, more important than an analysis on-trend. Questionnaires were more efficient to distribute to a large population as they were administered using an online platform (Survey Monkey) making the costs related to delivery and transport relatively low.

The questionnaire was adapted from a study done by Larkin (2017) who tested the engagement levels of millennials. The questionnaire was modified to include the relevant independent variables being tested in this study. The survey was administered through the social networking sites Facebook and WhatsApp, as well as via email and comprised two parts. The first section of the questionnaire collected demographic information, that is, their gender, level of education, work experience in years as well as their current job role (at the time of the study).

The second part of the questionnaire collected data on the objectives of the study, the level of employee engagement experienced by respondents at work and the overall ranking of each of these objectives, that is, the effect of actively supporting Career Development, the presence of a Work-Life Balance and the use of Enterprise Social-Media and Gamification in the workplace.

The questionnaire comprised of both open-ended and closed-ended questions, where the scope spread across the ordinal, nominal, ratio, and interval (having used a Likert scale). There was an explanatory cover letter attached to the questionnaire that shared with the respondents the purpose of the study along with a consent form needed to participate in the study.

### 3.6 Data Analysis

The data collected was exported into an Excel sheet for preliminary analysis before using SPSS Statistics to codify and analyse the distribution, descriptive statistics measures of central tendency, mean, mode and median, measures of dispersion specifically, standard deviation, variance, and measures of distribution specifically, Kurtosis and Skewness. These measures were applied to all four independent variables as well as the dependent variable (employee engagement). Pearson’s correlation was used to analyse the relationship (positive or negative) between the independent variables (engagement strategies) and the dependent variable (employee engagement).

### 3.7 Research Quality

The questionnaire was pilot tested with a subset of the sample size (15 responses), from the companies Arifu and Andela. The findings from this test were used to refine the questionnaire in terms of wording, phrasing and sentence structure, and alignment to objectives. The questionnaire was revised before its online distribution to the sample population. A Cronbach’s reliability test was performed on the questionnaire to ensure reliability using the sample of 15 responses. The requisite threshold was 0.7 as proposed by Field (2009). The reliability score was 0.916 indicating a high level of consistency of the scale with the sample.

**Table 3.2: Cronbach’s Reliability Test on Sample Data**

<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha Based on Standardized Items</b>	<b>N of Items</b>
0.916	0.924	33

### 3.8 Ethical Considerations

The ethical considerations undertaken aimed to address issues of confidentiality, anonymity, freedom of participation. As stated above, a cover letter was attached to each questionnaire and the purpose of the study was explained; with assured confidentiality, anonymity and encouraged freedom of participation. An Ethical Clearance was sought and granted at the Strathmore University Ethical Committee before embarking on the data collection.

The information collected was and continues to be stored securely with all personally identifiable information (PII) masked to protect the identity of the respondents. The form submission results were stored in a password-protected Excel Sheet document. The questionnaire was available up until the submission threshold was reached after which they were locked to into new entries. Saunders et al (2015) addresses the practical and ethical challenges faced when anonymising qualitative interview data. ‘Confidentiality’, they posit in their study, is a generic term that refers to all information that is kept hidden from everyone except the primary research team. Anonymity is one form of confidentiality – that of keeping participants’ identities secret. However, confidentiality also includes keeping private what is said by the participants, something only achievable through researchers choosing not to share parts of the data. An idealised view of anonymity is that a person will never be traceable from the data presented about them. Anonymisation in this project was particularly important. Participants shared very sensitive and personal information, not only about themselves, but also about third parties.

The respondents were given the in its entirety, the information needed to enable them to make an informed choice when and if they respond to the questionnaire. The information included the study objectives, their rights and protections, and the informed consent needed for the survey to take place. Participation by the respondents was solely undertaken by choice, and they had the option to discontinue their survey at any given point during the entire interview process. Once the Ethical Clearance was granted by the Strathmore University Ethical Committee, a further permit was required for primary data collection to go forward. This was sought and granted from the National Committee for Science, Technology, and Innovation (NACOSTI) to commence the study.

## CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

### 4.1 Introduction

This chapter discusses the data analysis of the 103 responses sourced from millennials working in the Kenyan technology space. The purpose of this study was to identify the effect of the engagement strategies used by organizations on the employee engagement of millennials.

The objectives of this study were to answer the following questions:

1. What effect does Career Development Opportunities have on employee engagement in millennials?
2. What effect does a Work-Life Balance have on employee engagement in millennials?
3. What effect does Enterprise Social-Media have on employee engagement in millennials?
4. What effect does Gamification have on employee engagement in millennials?

Questionnaires (Appendix 1) were shared electronically with the millennial employees. After expressly indicating their consent and willingness to participate, the employees thence completed the form. The data from the questionnaires was analysed using SPSS version 1.0.0.1508.

### 4.2 Biodata

#### 4.2.1 Respondents' Gender

The respondents were asked their gender, with an option to not specify if they didn't wish to share it. Male respondents were the majority with 55.3% of the total population size while female respondents represented 43.7% of the total respondents. Only one (1) respondent chose to not specify their gender (Table 4.1).

**Table 4.1: Gender Distribution**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Female	45	43.70%
I don't wish to disclose	1	1.00%
Male	57	55.30%
<b>TOTAL</b>	<b>103</b>	<b>100%</b>

#### 4.2.2 *Level of education*

Respondents were asked to state their highest level of education at the point of taking the survey. 55.3% of the respondents (the majority) had an undergraduate degree while 36.9% had attained a postgraduate degree. Fewer respondents had attained secondary and tertiary education as their highest level of formal schooling, with 1.9% and 5.8% respectively at the time they were interviewed (Table 4.2).

**Table 4.2: Highest Level of Education**

<b>Level</b>	<b>Frequency</b>	<b>Percentage</b>
Postgraduate Degree	38	36.90%
Secondary school	2	1.90%
Tertiary college	6	5.80%
Undergraduate Degree	57	55.30%
<b>TOTAL</b>	<b>103</b>	<b>100%</b>

#### 4.2.3 *Work experience*

Respondents were then asked to share their level of work experience within the given ranges. Majority (66%) of the respondents had 5-10 years of experience while 21% had less than 5 years of experience. The fewest respondents interviewed (13.6%) had more than 10 years of experience (Table 4.3).

**Table 4.3: Work Experience**

<b>Range</b>	<b>Frequency</b>	<b>Percentage</b>
5-10 years	68	66.00%
Less than 5 years	21	20.40%
More than 10 years	14	13.60%
<b>TOTAL</b>	<b>103</b>	<b>100%</b>

#### 4.2.4 Current job role

Respondents were asked to state what job role they held at the time of filling in the survey. Majority of the respondents held a managerial role (31.1%) while Volunteers tallied the least at 3.9% of the respondent group (Table 4.4).

**Table 4.4: Current Job Role**

<b>Role</b>	<b>Frequency</b>	<b>Percentage</b>
Individual Contributor	31	30.10%
Manager	32	31.10%
Other (please specify)	16	15.50%
Senior Management/C-Level	6	5.80%
Team Lead	14	13.60%
Volunteer	4	3.90%
<b>TOTAL</b>	<b>103</b>	<b>100%</b>

#### 4.2.5 Summary of the biodata

Section A revealed the respondents' gender distribution, level of education, work experience and current job role. Most of the respondents were male (55.3%), had attained an undergraduate degree (55.3%), had worked for 5-10 years (66%) and held a managerial position.

### 4.3 HUMAN RESOURCE MANAGEMENT STRATEGIES

#### 4.3.1 Career Development

In this subsection, respondents were asked five (5) questions related to their level of engagement, for example, how supported they felt on their journey in career development. The data collected was used to evaluate H1: *career development is positively related to employee engagement*. Majority of the respondents agreed that their organizations were dedicated to their professional development with a score of 3.7 out of a possible 5. Contrastingly, when asked if their company made an investment in their career development, the responses got a score of 3.09. In all questions, the responses were graded as positive (above 3 which is graded as a neutral) but none of the questions asked attained a score that was 4 or above. Only 66 responses were analysed for this section out of a possible 103. This was attributed to respondent drop-off after the Bio-Data section (Table 4.5).

With a mean of 3.4354, Career Development was scored as a positive for all respondents showing a shared the sentiment that their organization employed this strategy to some degree. The median (3.4) was very close to the mean showing that the data was symmetrical. Not all respondents agreed with the employment of this strategy with the minimum being 1.6. Some respondents overwhelmingly agreed with the maximum being 5 (Table 4.6). The distribution had a skewness of -0.181 and a kurtosis of -0.393 meaning that the distribution was not symmetrical nor normal. The distribution of the responses is further represented on the histogram (Figure 4.1). Actual responses can be reviewed in (Appendix 8).

**Table 4.5: Career Development - Mean and Standard Deviation**

Career Development Questions	Mean	Std. Deviation	N	Missing
CD1	3.7	0.976	66	37
CD2	3.67	0.982	66	37
CD3	3.45	0.964	66	37
CD4	3.09	1.119	66	37
CD5	3.27	0.969	66	37

Where:

CD1: My organisation is dedicated to my professional development

CD2: My manager and I have discussed my career goals

CD3: I am satisfied that I have the opportunities apply talents

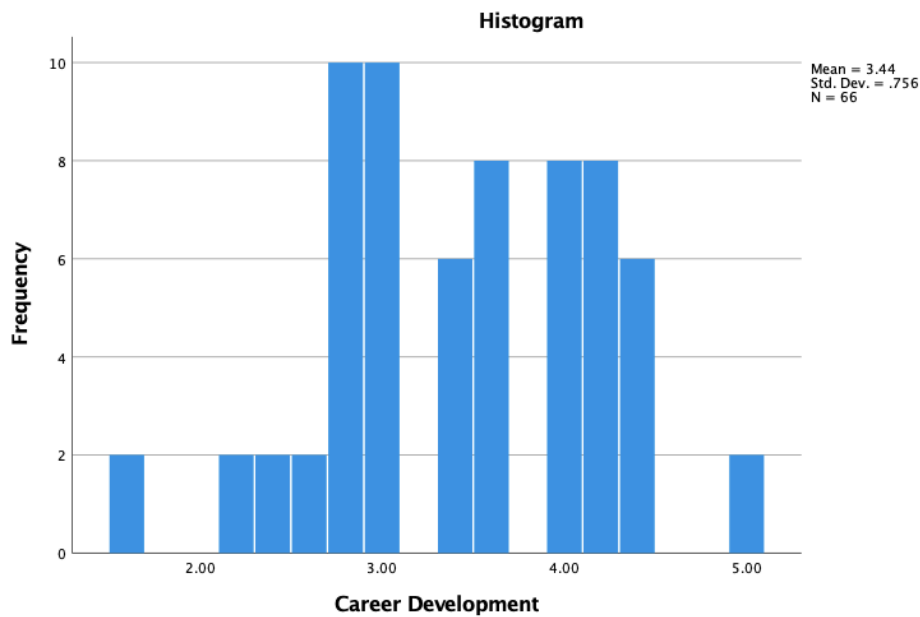
CD4: I am satisfied with the investment my company makes in training

CD5: I am satisfied with my opportunities for professional growth

**Table 4.6: Career Development - Overall Strategy Analysis**

		Statistic	Std. Error
Mean		3.4364	0.09311
5% Trimmed Mean		3.4515	
95% Confidence Interval for Mean	Lower Bound	3.2504	
	Upper Bound	3.6223	
Median		3.4	
Variance		0.572	
Std. Deviation		0.75644	
Minimum		1.6	
Maximum		5	
Range		3.4	
Interquartile Range		1.25	
Skewness		-0.181	0.295
Kurtosis		-0.393	0.582

**Figure 4.1: Career Development - Histogram**



### 4.3.2 Work-Life Balance

In this subsection, respondents were asked seven (7) questions related to their level of engagement, for instance, whether a work-life balance was more important than a good salary. This data was used to evaluate *H2: a work-life balance is positively related to employee engagement*. With a score of 4.64, majority of the respondents were satisfied with their current work-life balance. Contrastingly, with the lowest score of 3.09, fewer respondents felt that there is a reward programme in their workplace. Only 66 responses were analysed for this section out of a possible 103. This was attributed to respondent drop-off after the Bio-Data section (Table 4.7).

With a mean of 3.5281, Work-Life Balance was scored as a positive aspect for all respondents in their places of work, showing a shared the sentiment that their organization employed this strategy to some degree. The median (3.4286) was very close to the mean showing that the data was close to symmetry. The skewness was positive (0.632) and the kurtosis at 0.766 Not all respondents agreed with the employment of this strategy with the minimum being 2.43. Some respondents overwhelmingly agreed with the maximum being 5 (Table 4.8). The distribution had a skewness of 0.632 and a kurtosis of 0.766 meaning that the data was neither symmetrical

nor normal. The distribution of the responses is further represented on the histogram (Figure 4.2). Actual responses can be reviewed in (Appendix 9).

**Table 4.7: WLB- Mean and Standard Deviation**

<b>Work- Life Balance Questions</b>	<b>Mean</b>	<b>Std Deviation</b>	<b>N</b>	<b>Missing</b>
WLB1	3.09	1.274	66	37
WLB2	3.88	1.130	66	37
WLB3	3.30	1.252	66	37
WLB4	3.42	1.110	66	37
WLB5	4.64	.545	66	37
WLB6	3.18	1.094	66	37
WLB7	3.18	1.176	66	37

Where:

**WLB1:** There is a reward programme in my workplace

**WLB2:** A work-life balance is more important than a good salary

**WLB3:** I would choose a monetary reward over all other rewards

**WLB4:** I am satisfied with my current work-life balance

**WLB5:** Flexible working hours Are important to me

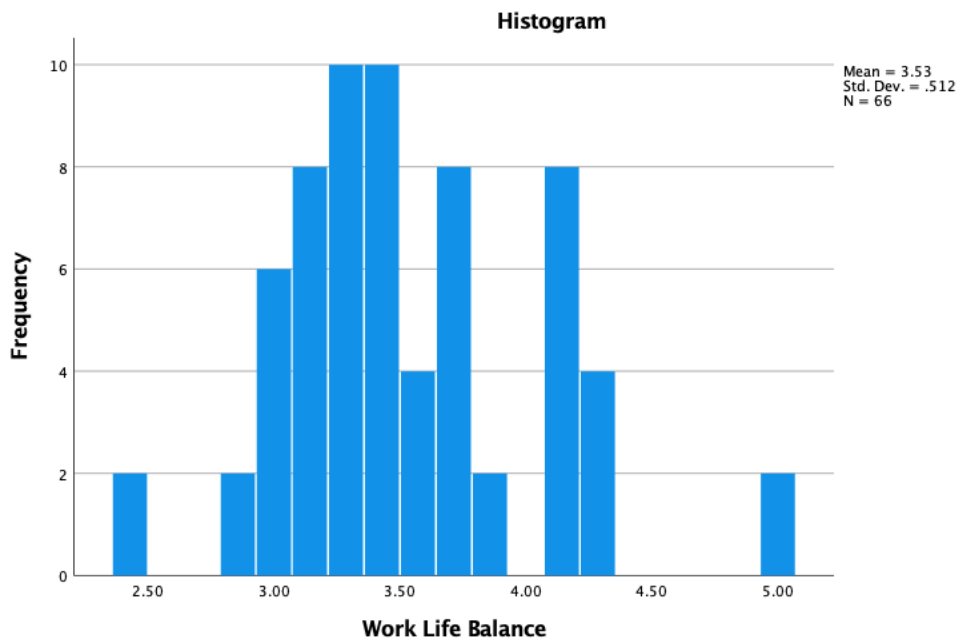
**WLB6:** I view promotion as the best reward for my work

**WLB7:** A monetary reward alone would motivate me to work harder

**Table 4.8: WLB - Overall Strategy Analysis**

		<b>Statistic</b>	<b>Std. Error</b>
Mean		3.5281	0.06299
95% Confidence Interval for Mean	Lower Bound	3.4023	
	Upper Bound	3.6539	
5% Trimmed Mean		3.5137	
Median		3.4286	
Variance		0.262	
Std. Deviation		0.5117	
Minimum		2.43	
Maximum		5	
Range		2.57	
Interquartile Range		0.61	
Skewness		0.632	0.295
Kurtosis		0.766	0.582

**Figure 4.2: WLB - Histogram**



### **4.3.3 Enterprise Social Media**

In this sub-section, respondents were asked 7 questions related to their level of engagement targeted at inter-company communication. This data was used to evaluate *H3: enterprise social media is positively related to employee engagement*. With a score of 4.45, majority of the respondents regarded open communication as an important engagement strategy in the workplace. Contrastingly, tied at the lowest score of 3.03, fewer respondents felt that their organization communicated with them on time and that their goals were aligned to that of the organization. Only 66 responses were analysed for this section out of a possible 103. This was attributed to respondent drop-off after the Bio-Data section (Table 4.9).

With a mean of 3.4892, Enterprise Social Media was scored as a positive for all respondents showing a shared the sentiment that their organization employed this strategy to some degree. The median (3.5714) was close to the mean showing that the data was close to symmetry. The skewness was positive (0.632) and the kurtosis at 0.766 Not all respondents agreed with the employment of this strategy with the minimum being 2.43. Some respondents overwhelmingly agreed with the maximum being 5 (Table 4.10). The distribution had a skewness of -0.406 and a kurtosis of 0.704 meaning that the data was neither symmetrical nor normal. The distribution

of the responses is further represented on the histogram (Figure 4.3). Actual responses can be reviewed in Appendix 10.

**Table 4.9: ESM - Mean and Standard Deviation**

<b>ESM Questions</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>N</b>	<b>Missing</b>
ESM1	3.09	1.147	66	37
ESM2	3.88	0.92	66	37
ESM3	3.03	1.095	66	37
ESM4	3.3	1.007	66	37
ESM5	3.64	1.132	66	37
ESM6	3.03	1.095	66	37
ESM7	4.45	0.612	66	37

Where:

**EMS1:** My organisation communicates openly using enterprise social media.

**ESM2:** My work is aligned to the company goals and objectives.

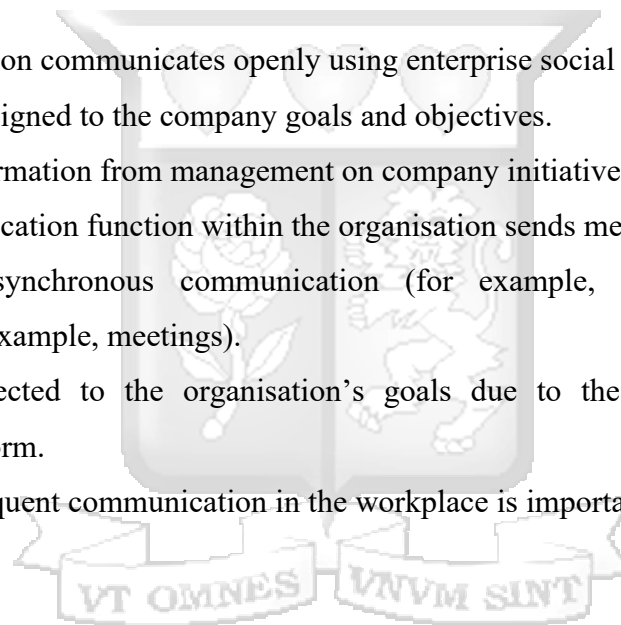
**ESM3:** I receive information from management on company initiatives on time.

**ESM4:** The communication function within the organisation sends messages frequently.

**ESM5:** I prefer asynchronous communication (for example, chat) to synchronous communication (for example, meetings).

**ESM6:** I feel connected to the organisation's goals due to the use of an enterprise communication platform.

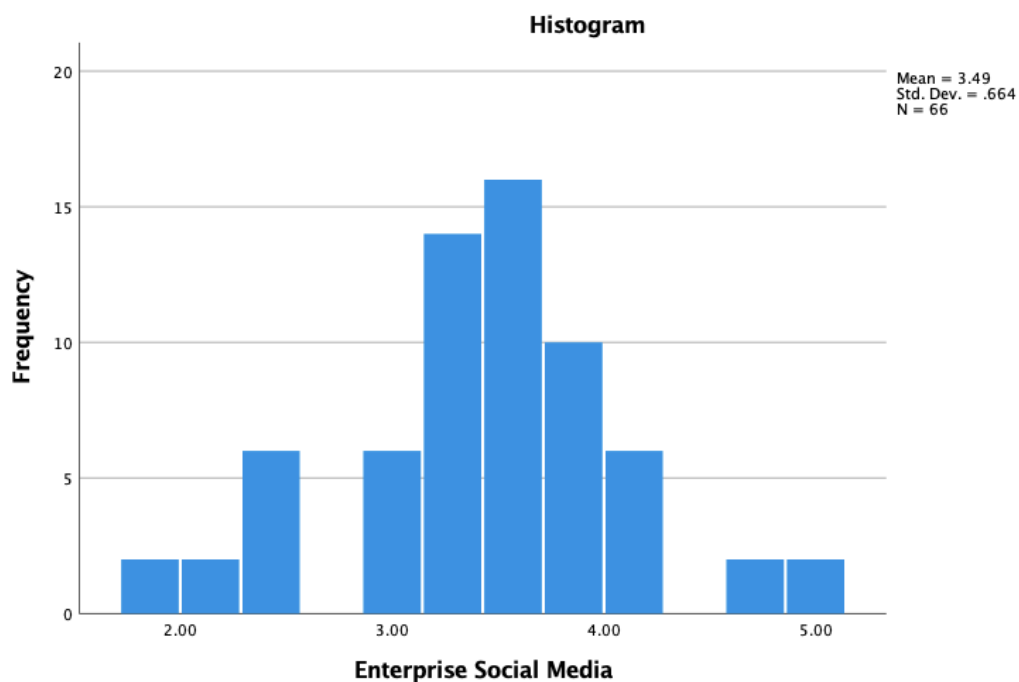
**ESM7:** Open and frequent communication in the workplace is important to me.



**Table 4.10: ESM - Overall Strategy Analysis**

		<b>Statistic</b>	<b>Std. Error</b>
Mean		3.4892	0.08173
95% Confidence Interval for Mean	Lower Bound	3.326	
	Upper Bound	3.6524	
5% Trimmed Mean		3.5022	
Median		3.5714	
Variance		0.441	
Std. Deviation		0.66397	
Minimum		1.86	
Maximum		5	
Range		3.14	
Interquartile Range		0.61	
Skewness		-0.406	0.295
Kurtosis		0.704	0.582

**Figure 4.3: ESM - Histogram**



#### 4.3.4 Gamification

In this sub-section, respondents were asked 7 questions related to their level of engagement which were targeted at analysing how enjoyable and challenging they found their work. This data was used to evaluate *H4: Gamification is positively related to employee engagement*. With a score of 4.12, majority of the respondents were agreed that they were more motivated to work when given a challenge. Contrastingly, with the lowest score of 3.24, fewer respondents felt that they worked in a fun environment. Only 66 responses were analysed for this section out of a possible 103. This was attributed to respondent drop-off after the Bio-Data section (Table 4.11).

With a mean of 3.7143, Gamification was scored as a positive strategy for all respondents with shared sentiment that their respective organizations employed this strategy to some degree. The median (3.7134) was equal to the mean showing that the data was close to symmetry. The skewness was positive (0.632) and the kurtosis at 0.766. Not all respondents agreed with the employment of this strategy with the minimum being 2.43. Some respondents overwhelmingly agreed with the maximum being 5 (Table 4.12). The distribution had a skewness of -0.11 and a kurtosis of -0.235 meaning that the data was neither symmetrical nor normal. The distribution of the responses is further represented on the histogram (Figure 4.4). The actual responses given can be reviewed in Appendix 11.

**Table 4.11: Gamification - Mean and Standard Deviation**

Gamification Questions	Mean	Std. Deviation	N	Missing
G1	3.85	0.932	66	37
G2	3.85	0.864	66	37
G3	3.67	1.128	66	37
G4	3.64	0.888	66	37
G5	3.64	1.104	66	37
G6	3.24	1.024	66	37
G7	4.12	0.645	66	37

Where:

**G1:** I enjoy the work I do

**G2:** I work because I find my work valuable and interesting

**G3:** If my job is challenging and gives me a sense of responsibility, I will perform even if the salary is not as good as a perceived equal

**G4:** Enjoyable work is more important than a good salary

**G5:** I feel challenged at work

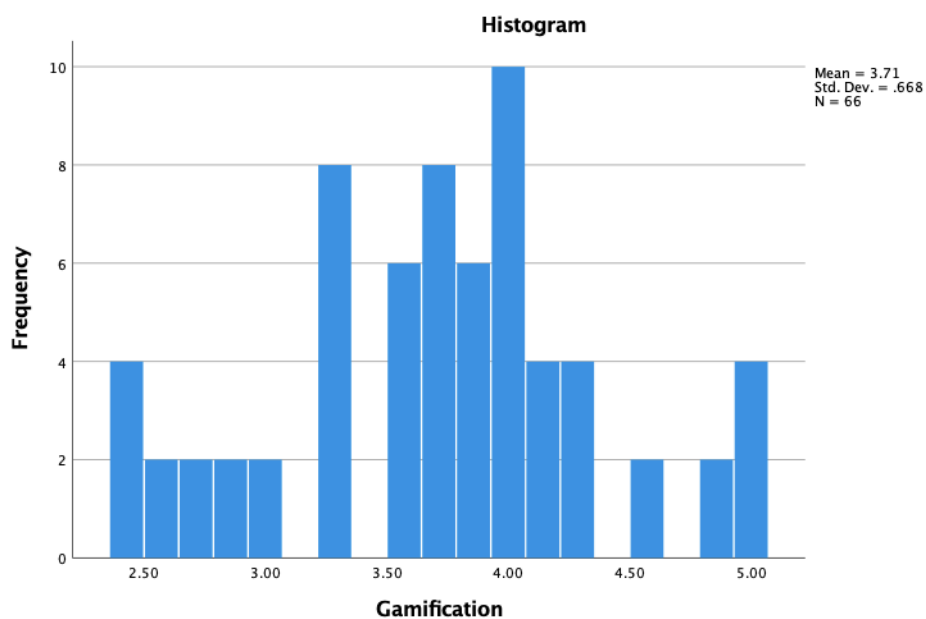
**G6:** I work in a fun environment

**G7:** I am more motivated to work when given a challenge

**Table 4.12: Gamification - Overall Strategy Analysis**

		Statistic	Std. Error
Mean		3.7143	0.08219
95% Confidence Interval for Mean	Lower Bound	3.5501	
	Upper Bound	3.8784	
5% Trimmed Mean		3.7143	
Median		3.7143	
Variance		0.446	
Std. Deviation		0.66771	
Minimum		2.43	
Maximum		5	
Range		2.57	
Interquartile Range		0.75	
Skewness		-0.11	0.295
Kurtosis		-0.235	0.582

**Figure 4.4: Gamification - Histogram**



### 4.3.5 Employee Engagement

In this sub-section, respondents were asked seven (7) questions directly related to their level of engagement. The data collected was used to make a correlation with each employee engagement strategy against the engagement levels of each respondent. With a score of 4.42, majority of the respondents were agreed that they were more motivated to work when presented with a challenge. Contrastingly, with the lowest score of 3.24, fewer respondents felt that they worked in a fun environment. Only 66 responses were analysed for this section out of a possible 103. This was attributed to respondent drop-off after the Bio-Data section (Table 4.13).

With a mean of 3.7143, Employee Engagement was scored as a positive for all respondents showing a shared sentiment that their organizations employed this strategy to some degree. The median (3.7134) was equal to the mean showing that the data was close to symmetry. The skewness was positive (0.632) and the kurtosis at 0.766. Not all respondents agreed with the employment of this strategy with the minimum being 2.43. Some respondents overwhelmingly agreed with the maximum being 5 (Table 4.14). The distribution had a skewness of -0.11 and a kurtosis of -0.235 meaning that the data was neither symmetrical nor normal. The distribution of the responses is further represented on the histogram (Figure 4.5). Actual responses can be reviewed in (Appendix 12).

**Table 4.13: EE - Mean and Standard Deviation**

Employee Engagement Questions	Mean	Std. Deviation	N	Missing
EE1	2.73	1.197	66	37
EE2	2.73	1.171	66	37
EE3	2.48	1.218	66	37
EE4	3.36	1.132	66	37
EE5	3.03	1.301	66	37
EE6	4.24	0.556	66	37
EE7	4.42	0.609	66	37

Where:

**EE1:** I am satisfied with the culture of my workplace.

**EE2:** I am satisfied with my overall job security.

**EE3:** I see myself working in the same company in the next 2 years.

EE4: I am aligned with my company’s overall objectives.

EE5: I would refer my company to my friends and family.

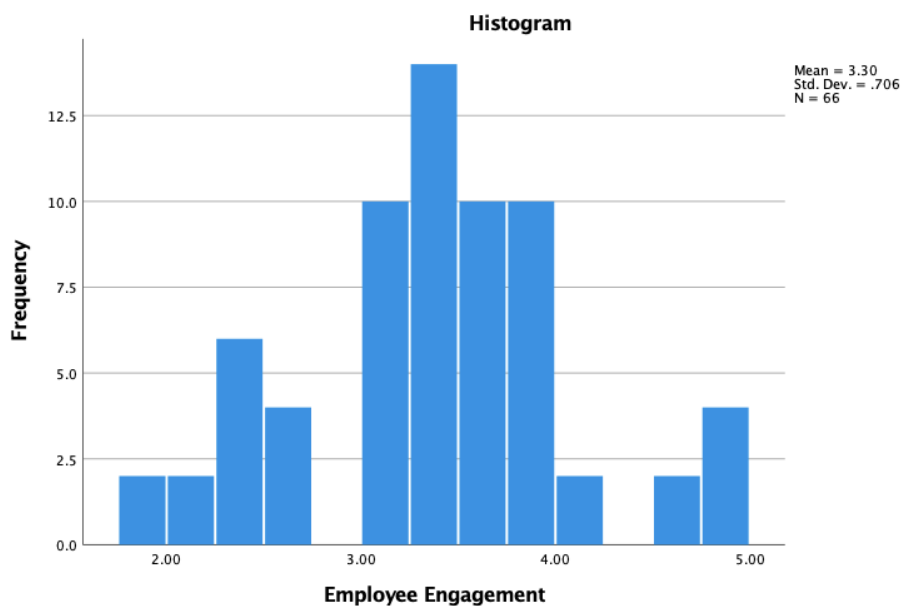
EE6: I look for new innovative ways to solve problems.

EE7: I am comfortable working without supervision.

**Table 4.14: EE - Overall Strategy Analysis**

		<b>Statistic</b>	<b>Std. Error</b>
Mean		3.2955	0.08694
95% Confidence Interval for Mean	Lower Bound	3.1218	
	Upper Bound	3.4691	
5% Trimmed Mean		3.2908	
Median		3.375	
Variance		0.499	
Std. Deviation		0.7063	
Minimum		1.88	
Maximum		4.75	
Range		2.88	
Interquartile Range		0.75	
Skewness		-0.056	0.295
Kurtosis		-0.038	0.582

**Figure 4.5: EE - Histogram**



### 4.3.6 Overall Ranking

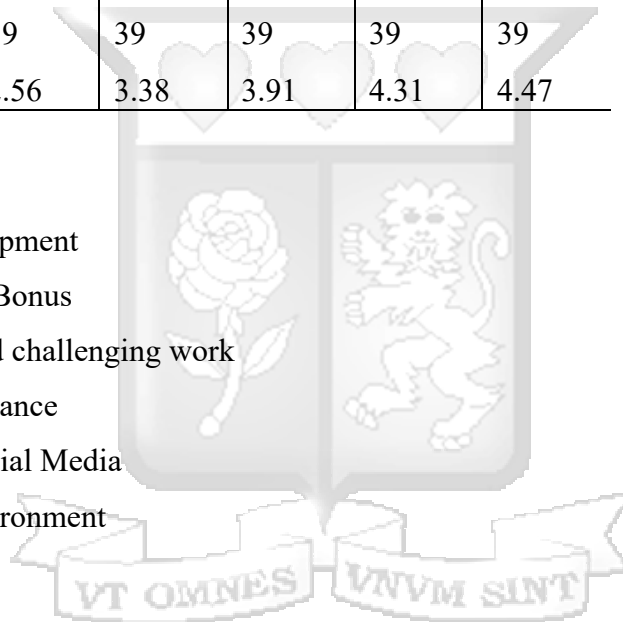
While ranking the engagement strategies, 1 being most important and 6 being least, Career Development had the lowest mean (2.38) making it the most important strategy among the 64 complete responses received. A pay increase was the second-most important strategy (2.56) highlighting the importance of fair compensation. Interesting and challenging work came in third (3.38). A work-life balance followed at 3.91 and the use of enterprise social media fifth at 4.31. A fun work environment was the least important at 4.48 (Table 4.15).

**Table 4.15: Strategy Ranking**

	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>f</b>
Valid	64	64	64	64	64	64
Missing	39	39	39	39	39	39
Mean	2.38	2.56	3.38	3.91	4.31	4.47

Where:

1. Career Development
2. Pay increase/ Bonus
3. Interesting and challenging work
4. Work Life Balance
5. Enterprise Social Media
6. Fun work environment



## 4.4 Model Presentation

**Figure 4.6: Pearson's Correlation Formula**

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}}$$

Where:

- r = correlation coefficient  
x = values of the x-variable in a sample

- x = mean of the values of the x-variable  
y = values of the y-variable in a sample  
y = mean of the values of the y-variable

The four hypotheses tested in this study were:

1. *H1*: Career Development is positively related to Employee Engagement
2. *H2*: Offering a Work-Life Balance is positively related to Employee Engagement
3. *H3*: Enterprise Social Media is positively related to Employee Engagement
4. *H4*: Gamification is positively related to Employee Engagement

Inferential data analysis was undertaken using Pearson Correlation to analyse the relationship between Employee Engagement and the 4 engagement strategies (Figure 4.6). Table 4.16 shows that gamification had the most significant score at 0.747. Career development was second with a score of 0.609 and enterprise social media third with a score of 0.529. A work-life balance, initially considered very important, had the least score relation to employee engagement at 0.269, significant at 0.05. All 4 objectives are significant at 0.01, showing a positive association to employee engagement.

Table 4.17 shows that the study had a Correlation Coefficient R of .760. This denotes a strong uphill, or positive, linear relationship between the four (4) engagement strategies and employee engagement. The results proved all four (4) hypotheses that career development, work-life balance, enterprise social media and gamification were positively related to employee engagement. Additionally, the Null Hypothesis that employee engagement was equal across the population was rejected since the sum of squares were not equal. The Regression partition had a sum of 18.728 and Residual partition a sum of 13.698. The means differed with Regression partition scoring 4.682 and Residual partition scoring 0.225. The F statistic was 20.85, further proving that employee engagement was not across the board (Table 4.18). Table 4.19 shows that the reliability score of the data was 0.898 which was above the requisite threshold of 0.7 as proposed by Field (2009), indicating a high level of consistency of the scale with the sample.

**Table 4.16: Correlation Analysis**

Independent Variables → Dependent Variable ↓		CD	WLB	ESM	G
Employee Engagement	Pearson Correlation	.604**	.269*	.529**	.747**
	Sig. (2-tailed)	<.001	0.029	<.001	<.001
Valid Responses		66	66	66	66

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

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

Where:

Independent Variables:

1. **CD:** Career Development
2. **WLB:** Work Life Balance
3. **ESM:** Enterprise Social Media
4. **G:** Gamification

Dependent Variable:

- Employee Engagement

**Table 4.17: R and R Square**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 <sup>a</sup>	0.578	0.55	0.47388

a. Predictors: (Constant), work life balance, gamification, enterprise social media, career development

b. Dependent Variable: Employee Engagement

**Table 4.18: ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	18.728	4	4.682	20.85	<.001 <sup>b</sup>
Residual	13.698	61	0.225		
Total	32.426	65			

a. Dependent Variable: Employee Engagement

b. Predictors: (Constant), work life balance, gamification, enterprise social media, career development

**Table 4.19: Cronbach's Alpha Reliability Test**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.898	0.901	33



## **CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

The research was conducted on millennials in the Software Development field in Kenya and sought to ascertain whether the more broadly envisaged employee engagement strategies used in recent years, both in the workplace and academia, influenced employee engagement, and further, in what manner. A key result of the research was the identification of the effects each of the four (4) strategies had on employee engagement.

This chapter contains discussion and future research possibilities to help answer the research questions:

1. What effect does Career Development Opportunities have on Employee Engagement in Millennials?
2. What effect does a Work-Life Balance have on employee Engagement in Millennials?
3. What effect does Enterprise Social Media have on Employee Engagement in Millennials?
4. What effect does Gamification have on Employee Engagement in Millennials?

### **5.2 Summary of the Findings**

#### **5.2.1 *The effect of career development initiatives on employee engagement***

In line with the first objective, the study analysed the extent to which career development initiatives affected the engagement of millennial employees. Career development was analysed under the sub measures of skill improvement and future setting. Career Development had a Pearson's correlation score of 0.604 making it the second-most related strategy. Majority of the millennial employees agreed that their organizations were dedicated to their professional development, represented by a mean of 3.7 (Table 9). This number, however, reduced as other aspects such as investment in training and opportunities for skill application were questioned. Fewer respondents, for example, were satisfied with the investment their company made to training them.

These findings were supported by Maxwell, Ogden and Broadbridge (2010) who found that millennials had high initial career expectations and even higher aspirations for their career

development in the long-term that they felt could not be met in the hospitality industry as it were. Aspirations focused on their personal career development, and other factors such as: the determination to succeed and adequate remuneration respectively. This study supported their findings on the importance of Career Development based on the results of the Strategy Ranking, with a score of 2.38 (Table 4.15).

The study also found that monetary rewards were the second-most important engagement strategy (2.56), a finding supported by Wachira (2013) where only 25.84% of the respondents felt that career development was the best way an employer showed their interest in employee commitment. In the same study, 46.07% of the respondents favoured rewards and salary programs. This contradicts other studies that challenge monetary benefits as a viable engagement strategy to promote employee engagement and/or commitment in and of itself. The study concluded that an employee who feels engaged will most likely be committed to the organisation.

### ***5.2.2 The effect of work-life balance on employee engagement***

In line with the second objective, the study analysed the extent to which work-life balance initiatives affected the engagement of millennial employees. Work-life balance was analysed under the sub measures of flexibility and freedom versus remuneration. The presence of a Work-Life had a positive Pearson's correlation score of 0.269 making it the least related to employee engagement. These finding was supported by Iqbal et al. (2017) that found that not only was a work-life balance positively related to employee engagement, but that when employees had less time to rest and a had larger workload, they were less engaged.

Work-life balance was ranked as the fourth-most important strategy according to millennial employees, with a score of 3.91 (Table 4.15). TrueCareers (2002) ran a job site survey that found 70% of 1500 interviewed millennials displeased with their healthy work-life balance. The contradictory results of this study spoke to the progress organizations had made to support a healthier lifestyle for their employees. 46.6% of the respondents agreed that the presence of a work-life balance was more important than a monetary reward, hence choosing freedom over remuneration.

### ***5.2.3 The effect of enterprise social media on employee engagement***

In line with the third objective, the study analysed the extent to which using enterprise social media affected the engagement of millennial employees. Enterprise social media was analysed under the sub measures of open communication and organizational awareness. Enterprise social-media had a Pearson's correlation score of 0.529 making it the third-most related strategy (Table 4.16) to employee engagement. It ranked second last in terms of importance by the respondents in the study with a score of 4.31 (Table 4.15). Sharma & Bhatnagar (2016) were correct in stating that Enterprise Social-Media was seen more as a way for employees to connect with their organizations purpose. This study proved this in Appendix 11 where 50.5% of respondents found that their work was aligned with their company's goals and objectives. The same question had a mean of 3.88 making it the second most positive after the importance of open and frequent communication (Table 4.9).

The findings proved the studies done by Lee (2013) and Mishra, Boynton, and Mishra (2014) true since 60.2% of respondents found open communication in the workplace especially important (Appendix 10). It is critical for internal communication professionals to get involved immediately with employees that join their organizations by orienting them into the organization, taking time out to develop their professional skills, asking them for feedback, and in turn, taking out the time to listen to their concerns, remaining as involved as possible. The negative effects of Enterprise Social-Media (Chen & Wei, 2019), which can be seen as over-communication in the workplace, were not tackled in this study.

### ***5.2.4 The effect of gamification on employee engagement***

In line with the fourth objective, the study analysed the extent to which gamification initiatives affected the engagement of millennial employees. Gamification was analysed under the sub measures of challenging work and a fun work environment. Gamification emerged as the most significant employee engagement strategy with a correlation score of 0.747. Rivers (2016) supported this by stating that gamification had a highly significant impact on overall engagement, intellectual and affective engagement, and social engagement. It (gamification) also had a highly significant impact on two consequences of employee engagement: increased organizational citizenship behaviour and the decreased intent to turnover. This also proved Houtari & Hamari's (2014) assertion that gamification had raised interest in both industry and in academia. This, however, contradicted how it was ranked by employees in this study, with

the aspects of challenging work ranking third (3.38) and fun ranking last (4.47) respectively (Table 4.15). This brought into question whether work perceived as fun was viewed negatively versus work that was challenging (both of which are aspects of gamification).

Hamari (2013) found that in most cases gamification does produce positive effects and benefits. It was however found to be ineffective in a utilitarian service setting; engagement by gamification depended on several factors, such as the motivation of users. Webb (2013) furthered the position by stating that gamification could be a powerful way to increase employee engagement and productivity within an enterprise software system. However, successful gamification required a thorough understanding of the end use of the system, design based on that user's motivations and goals, as well as testing both during development, and its subsequent release.

### **5.3 Conclusions**

#### **5.3.1 Career Development**

Based on the study's findings, the study concludes that career development factors (skill improvement and future setting) pose a significant influence on the employee engagement of millennial employees. The HR function of software development firms needs to invest company resources in training, and time in speaking to staff about their career goals. However, the study also concludes that remuneration packages are still very important to employees and should not be overlooked when offering performance-based rewarding schemes.

#### **5.3.2 Work-Life Balance**

The study concludes that work-life balance factors (flexibility and autonomy versus remuneration) pose a significant influence on the employee engagement of millennial employees. The HR function of software development firms need to greater support working hours that allow employees to spend time with their families and friends so as to keep them more engaged and productive at work. Trading flexibility for higher pay will be detrimental to keeping staff engaged in the long term as freedom is held with higher regard. Promoting a healthy work-life balance will counteract the effects of burnout caused by crunch culture.

### **5.3.3 Enterprise Social Media**

The study concludes that enterprise social media factors (open communication and organizational awareness) have a significant influence on the employee engagement of millennial employees. The HR function of software development firms should adopt asynchronous communication channels such as Slack and Email to keep employees informed, respecting the time they allocate to the employees' flow (uninterrupted focus time) and allowing for interactive dialogue between both parties. Communication from leadership should also be frequent and clear, promoting alignment between employees' tasks and the company's objectives.

### **5.3.4 Gamification**

Based on the study's findings, gamification factors (challenging work and a fun work environment) also hold significant sway on the level employee engagement of millennial employees. The HR function in software development firms should engage employees in exercises that demystify the sentiment that work is not regarded to be, or expected to be, fun, causing a motivation and plausible turnover. Offering a challenge at the workplace should also not be seen as introducing unattainable targets or unrealistic goals because this will lead to burnout, causing employees to overwork themselves and lose their work-life balance. It would surely have negative extrinsic influence on intrinsic behaviours, motivations and goals.

## **5.4 Recommendations**

### **5.4.1 Implications for Academia**

Exchange-inducing interventions can remind employees of a sense of obligation making them feel obliged to reciprocate (Ganzach et al, 2002). Therefore, future research should investigate the extent to which interventions can create a sense of obligation that leads to individuals to reciprocate with higher levels of engagement. For example, communication was found to be a key driver of engagement, and so, training managers on how to communicate effectively might be effective for improving perceptions of involvement and a sense of belonging. Interventions in job design, which provide employees with more autonomy and freedom as well as career management interventions, might also be effective. These are likely to be rewarding areas for future research due to the growing interest organisations have in improving employee

engagement and may address the problem of the majority of employees being disengaged or not engaged (Truss et al, 2006), to be utilized in improving their understanding of millennials with the aim of employing better strategies in the workplace. The fact that the study covers somewhat of a novel field, especially in the growing continent of Africa, both technologically and otherwise, inspired the furthering of academic investigation and query in the area. This is due to the growth of the millennial generation in the workplace as seen in the literature review.

#### ***5.4.2 Implications for Practitioners***

The study illuminated the needs and wants of millennial employees in Software Development firms in Kenya. HR professionals should use this information to improve their use of the four employee engagement strategies tackled in this study. The research findings provided clues in identifying the needs and challenges leaders face while empowering employees, as well policy potentials to investigate and implement going forward. All participants in the survey indicated that employees desire a challenge in their work and want their leaders to trust them in completing their assigned tasks, as well as empower them to grow their skills and objectives in their career development. All participants believed employees should receive the necessary training and resources to do their jobs. Deci and Ryan (1985) referred to competence as the effectiveness and the use of an individual's skills, which allows him or her to work at high levels. Employees that are confident in themselves are confident in their daily work duties.

The study can provide a foundation for organizational leaders currently implementing some of the strategies identified but may lack strategies which can improve employee engagement. Improving employee engagement strategies is essential to an organization's profitability. Disengaged employees will result in reduced workplace productivity and decreased customer service skills.

## **5.5 Limitations of the Study**

### ***5.5.1 Population and Sample size***

There was no unified list of software development firms in the country at the time of the study. Nzoya (2018) stated that there were 283 such companies but offered no list, necessitating assumptions of the population based on professional knowledge of the researcher on the industry. Additionally, the available sample size was not large enough for comprehensive study and thus made it difficult to find significant relationships from the data, as statistical tests normally require a larger sample size to ensure a representative distribution of the population and to be considered representative of groups of people to whom results will be generalized or transferred.

### ***5.5.2 Lack of available data***

There was a lack of previously researched data on the specific objective and industry of this study which limited the scope of the analysis required for the magnitude of this study. The relationships required and the trends and factors that contribute to these relationships were impeded. Despite the fact that human resource management has evolved greatly in recent decades, there was a dearth in research in the study of employee engagement: firstly of millennials in the evolving workspace; secondly in the African, and Kenyan, space. In the first instance, there was little light shed on the nuances and processes that constitute the rapidly growing ICT sector. It is important that this be addressed for the sake of existing/aging millennials and for those generations that are on the cusp of joining the workspace. To keep up with the fast-changing world that we now find ourselves in.

There was also respondent drop-off after the first section of the survey, as well as towards the end when asked to rank the strategies. This may be attributed to the differed sentiments of the millennial workforce, frustration in filling in the survey or even fatigue at work.

### ***5.5.3 Limitations of the Researcher***

There was an issue of access to respondents due to the changing workplace climate during the COVID pandemic (OECD, 2020). Several contacts in the software development industry had either changed jobs or were unemployed at the time of the study. The sentiments of the respondents may have been biased, based on their current employment situation which

necessitates a similar, or more extensive, study to be performed once the industry regained stability.



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## APPENDICES

### Appendix 1: Questionnaire

#### Section A: BIODATA

1. Gender of the respondent?

Male  Female

2. What is your highest level of education?

Primary school  Secondary school  Tertiary college  University  None

3. How many years of work experience do you have?

Less than 5 years  5-10 years  More than 10 years

4. What is your current job role?

Volunteer  Intern  Individual Contributor  Team Lead

Manager  Management/C-Level  Other

#### Section B: HUMAN RESOURCE MANAGEMENT STRATEGIES

On a scale of 1-5 indicate your level of agreement with the following statements where:

1 = strongly disagree

2 = disagree

3 = neither agree nor disagree

4 = agree

5 = strongly agree

1. Career Development	1	2	3	4	5
My organisation is dedicated to my professional development.					
My manager and I have discussed my career goals.					
I am satisfied that I have the opportunities to apply my talents and expertise.					
I am satisfied with the investment my company makes in training and education.					
I am satisfied with my opportunities for professional growth.					

2. Work Life Balance	1	2	3	4	5
There is a reward programme in my workplace.					
A work-life balance is more important than a good salary.					
I would choose monetary reward over all other rewards.					
I am satisfied with my current work life balance.					
Flexible working hours are important to me.					
I view a promotion as the best reward for my work.					
Monetary reward alone would motivate me to work harder.					

3. Enterprise Social Media	1	2	3	4	5
My organisation communicates openly using enterprise social media.					
My work is aligned to the company's goals and objectives.					
I receive information from management on company initiatives on time.					
The communication function within the organisation sends messages frequently.					
I prefer asynchronous communication (e.g. chat) to synchronous communication (e.g. meetings).					
I feel connected to the organisation's goals due to the use of an enterprise communication platform.					
Open and frequent communication in the workplace is important to me.					

4. Gamification	1	2	3	4	5
I enjoy the work I do.					
I work because I find my work valuable and interesting.					
If my job is challenging and gives me a sense of responsibility, I will perform even if the salary is not as good as a perceived equal.					
Enjoyable work is more important than a good salary.					
I feel challenged at work.					
I work in a fun environment.					
I am more motivated to work when given a challenge.					

5. Employee Engagement	1	2	3	4	5
I am satisfied with the culture of my workplace.					
I am satisfied with my overall job security.					
I see myself working in the same company in the next 2 years.					
I am aligned with my company's overall objectives.					
I would refer my company to friends and family.					
I look for new, innovative ways to solve problems					
I am comfortable working without supervision					

6. Ranking	
In terms of motivation, please rank the following workplace rewards in order of importance, where 1 is most important and 6 is least important.	
Pay increase / bonus	
Flexible working conditions	
Opportunities for advancement / Career Development	
Interesting and challenging work	
A fun work environment	
Open Communication	

Adapted from (Larkin, 2017).



## Appendix 2: Proposed Work Plan

**Title of Thesis:** THE EFFECT OF ENGAGEMENT STRATEGIES ON THE EMPLOYEE ENGAGEMENT OF MILLENNIALS IN KENYA’S SOFTWARE DEVELOPMENT FIRMS

Progress Stage	Stage Description	Proposed dates
1	Scoping of the Research study	January 2020
2	Choice of Research Topic	January 2020
3	Research Problem clarification, Research objectives, Purpose and Significance	February 2020
4	Literature Review	March 2020
5	Proposal of Research Methodology	March 2020
6	Defense of Research Proposal	April 9 <sup>th</sup> 2020
7	Data Collection	April 15 <sup>th</sup> – 28 <sup>th</sup> 2020
8	Data analysis and Interpretation	April 31 <sup>st</sup> -May 8 <sup>th</sup> 2020
9	Dissertation Report Writing	May 9 <sup>th</sup> -May 20 <sup>th</sup> 2020
10	Thesis Report Assessment By Examiners	May 31 <sup>st</sup> 2020
11	Oral Defense of Dissertation	June 8 <sup>th</sup> 2020
12	Dissertation Correction After Assessment By Examiners	June 14 <sup>th</sup> 2020

Any remarks:

Dates have been revised due to a resubmission of the proposal

## Appendix 3: Ethical Clearance



**Strathmore**  
UNIVERSITY

15<sup>th</sup> September 2020

Mr Mbugua, Rufus  
rufus.ngugi@strathmore.edu

Dear Mr Mbugua,

**RE: The Role of Career Development, Work-Life Balance, Enterprise Social Media and Gamification on Employee Engagement Among Millennials in Kenya's Software Development Firms**

This is to inform you that SU-IERC has reviewed and **approved** your above research proposal. Your application approval number is **SU-IERC0867/20**. The approval period is **15<sup>th</sup> September 2020 to 14<sup>th</sup> September 2021**.

This approval is subject to compliance with the following requirements:

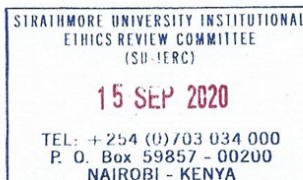
- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

for: Yours sincerely,


Dr Virginia Gichuru,  
Secretary; SU-IERC

Cc: Prof Fred Were,  
Chairperson; SU-IERC




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# Appendix 4: NACOSTI Permit



**REPUBLIC OF KENYA**


Ref No: **506699**



**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION**

Date of Issue: **22/September/2020**

**RESEARCH LICENSE**



**This is to Certify that Mr. Rufus Ngugi Mbugua of Strathmore University, has been licensed to conduct research in Nairobi on the topic: THE EFFECT OF ENGAGEMENT STRATEGIES ON THE EMPLOYEE ENGAGEMENT OF MILLENNIALS IN KENYA'S SOFTWARE DEVELOPMENT FIRMS for the period ending : 22/September/2021.**


License No: **NACOSTI/P/20/6847**

Applicant Identification Number: **506699**

*Walter*

**Director General**  
**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION**

Verification QR Code



**NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.**

## **Appendix 5: Participant Information and Consent Form**

### THE EFFECT OF ENGAGEMENT STRATEGIES ON THE EMPLOYEE ENGAGEMENT OF MILLENNIALS IN KENYA'S SOFTWARE DEVELOPMENT FIRMS

#### SECTION 1: INFORMATION SHEET

**Investigator:** RUFUS NGUGI MBUGUA

**Institutional affiliation:** Strathmore Business School

#### SECTION 2: THE STUDY

2.1: Why is this study being carried out?

To understand the relationship and effectiveness of engagement policies that target millennial employees.

2.2: Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on by RUFUS MBUGUA. If you are not able to answer all the questions successfully the first time, you may be asked to sit through another informational session after which you may be asked to answer the questions a second time. You are free to decline to take part in the study from this study at any time without giving any reasons.

2.3: Who is eligible to take part in this study?

Employees of Software Development firms between the ages of 24 and 39.

2.4: Who is not eligible to take part in this study?

Employees of firms not in the Software Development space and those whose ages are not between the 24 and 39.

2.5: What will taking part in this study involve for me?

You will be approached by RUFUS MBUGUA and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the informed consent form (this form) and then taken through a questionnaire to complete.

2.6: Are there any risks or dangers in taking part in this study?

There are no risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

2.7: Are there any benefits of taking part in this study?

The information will be used to improve HR professionals' knowledge on how to engage millennial employees.

2.8: What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

2.9: Who will have access to my information during this research?

All research records will be stored in securely locked cabinets. That information may be transcribed into our database but this will be sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

2.10: Who can I contact in case I have further questions?

You can contact me, RUFUS MBUGUA, at SBS, or by e-mail (mbuguarufus@gmail.com), or by phone (+254721211763). You can also contact my supervisor, Dr. Angela Ndunge, at the Strathmore Business School, Nairobi, or by e-mail (andunge@strathmore.edu) or by phone (+254 (0) 706 511 872)

If you want to ask someone independent anything about this research please contact:

The Secretary–Strathmore University Institutional Ethics Review Board, P. O. BOX 59857, 00200, Nairobi, email ethicsreview@strathmore.edu Tel number: +254 703 034 375

I, \_\_\_\_\_, have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you;

Participation in the research study

I AGREE to take part in this research

I DO NOT AGREE to take part in this research

Storage of information on the completed questionnaire

I AGREE to have my completed questionnaire stored for future data analysis

I DO NOT AGREE to have my completed questionnaire stored for future data analysis

Participant's Signature: \_\_\_\_\_

Participant's Name: \_\_\_\_\_

(Please print name)

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

DD/ MM/ YEAR

Time: \_\_\_\_ / \_\_\_\_

HR / MN

I, \_\_\_\_\_ (Name of person taking consent) certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that s/he has understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

Investigator's Signature: \_\_\_\_\_

Investigator's Name: \_\_\_\_\_

(Please print name)

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

DD/ MM/ YEAR

Time: \_\_\_\_ / \_\_\_\_

HR / MN

### Appendix 6: Payments and Compensation

The study was conducted via an online questionnaire. No compensation was available to the participants.

### Appendix 7: Proposed Study Budget

Due to the online nature of the data collection process, no funding was required to travel to and from the study centres.

Item	Cost
Computer running Windows 10	20,000
Internet Connection (Safaricom Bundle, 5GB)	1,000
Survey Monkey Subscription (Standard Monthly @3600) for 6 months	21600
Total	42,000

## Appendix 8: Career Development Responses

Likert Score → Question ↓	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing System	TOTAL
My organisation is dedicated to my professional development							
Frequency	0	10	23	32	18	20	103
Percentage	0	9.70%	22.30%	31.10%	17.50%	19.40%	100.00%
My manager and I have discussed my career goals							
Frequency	6	10	13	42	12	20	103
Percentage	5.80%	9.70%	12.60%	40.80%	11.70%	19.40%	100.00%
I am satisfied that I have the opportunities to apply my talents							
Frequency	4	10	22	37	10	20	103
Percentage	3.90%	9.70%	21.40%	35.90%	9.70%	19.40%	100.00%
I am satisfied with the investment my company makes in training							
Frequency	8	17	28	20	10	20	103
Percentage	7.80%	16.50%	27.20%	19.40%	9.70%	19.40%	100.00%
I am satisfied with my opportunities for professional growth							
Frequency	4	15	30	26	8	20	103
Percentage	3.90%	14.60%	29.10%	25.20%	7.80%	19.40%	100.00%

## Appendix 9: Work-Life Balance Responses

Likert Score → Question ↓	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing System	TOTAL
There is a reward programme in my workplace.							
Frequency	12	8	14	30	6	33	103
Percentage	11.70%	7.80%	13.60%	29.10%	5.80%	32.00%	100%
A work life balance is more important than a good salary.							
Frequency	2	10	10	24	24	33	103
Percentage	1.90%	9.70%	9.70%	23.30%	23.30%	32.00%	100%
I would choose monetary reward overall other rewards.							
Frequency	6	14	12	24	14	33	103
Percentage	5.80%	13.60%	11.70%	23.30%	13.60%	32.00%	100%
I am satisfied with my current work life balance.							
Frequency	4	12	10	36	8	33	103
Percentage	3.90%	11.70%	9.70%	35.00%	7.80%	32.00%	100%
Flexible working hours are important to me.							
Frequency	0	0	2	22	46	33	103
Percentage	0	0	1.90%	21.40%	44.70%	32.00%	100%
I view promotion as the best reward for my work.							
Frequency	2	22	22	12	12	33	103
Percentage	1.90%	21.40%	21.40%	11.70%	11.70%	32.00%	100.00%
Monetary reward alone would motivate me to work harder.							
Frequency	2	22	18	16	12	33	103
Percentage	1.90%	21.40%	17.50%	15.50%	11.70%	32.00%	100%

## Appendix 10: Enterprise Social Media Responses

Likert Score → Question ↓	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing System	TOTAL
My organization communicates openly using enterprise social media.							
Frequency	8	12	16	26	4	37	103
Percentage	7.80%	11.70%	15.50%	25.20%	3.90%	35.90%	100%
My work is aligned to the company's goals and objectives.							
Frequency	2	4	8	38	14	37	103
Percentage	1.90%	3.90%	7.80%	36.90%	13.60%	35.90%	100%
I receive information from management on company initiatives on time.							
Frequency	6	16	18	22	4	37	103
Percentage	5.80%	15.50%	17.50%	21.40%	3.90%	35.90%	100%
The communication function within the organization sends messages frequently.							
Frequency	4	8	24	24	6	37	103
Percentage	3.90%	7.80%	23.30%	23.30%	5.80%	35.90%	100%
I prefer asynchronous communication (e.g. chat) to asynchronous communication (e.g. meetings).							
Frequency	6	2	16	28	14	37	103
Percentage	5.80%	1.90%	15.50%	27.20%	13.60%	35.90%	100%
I feel connected to the organisation's goals due to the use of an enterprise communication platform.							
Frequency	6	16	18	22	4	37	103
Percentage	5.80%	15.50%	17.50%	21.40%	3.90%	35.90%	100%
Open and frequent communication in the workplace is important to me.							
Frequency	0	0	4	28	34	37	103
Percentage	0	0	3.90%	27.20%	33.00%	35.90%	100%

## Appendix 11: Gamification Responses

Likert Score → Question ↓	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing System	TOTAL
I enjoy the work I do.							
Frequency	0	8	10	32	16	37	103
Percentage	0	7.80%	9.70%	31.10%	15.50%	35.90%	100%
I work because I find my work valuable and interesting.							
Frequency	0	6	12	34	14	37	103
Percentage	0	5.80%	11.70%	33.00%	13.60%	35.90%	100%
If my job is challenging and gives me a sense of responsibility.							
Frequency	2	12	8	28	16	37	103
Percentage	1.90%	11.70%	7.80%	27.20%	15.50%	35.90%	100%
Enjoyable work is more important than a good salary.							
Frequency	0	8	18	30	10	37	103
Percentage	0	7.80%	17.50%	29.10%	9.70%	35.90%	100%
I feel challenged at work.							
Frequency	4	8	8	34	12	37	103
Percentage	3.90%	7.80%	7.80%	33.00%	11.70%	35.90%	100%
I work in a fun environment.							
Frequency	2	14	24	18	8	37	103
Percentage	1.90%	13.60%	23.30%	17.50%	7.80%	35.90%	100%
I am more motivated to work when given a challenge.							
Frequency	0	2	4	44	16	37	103
Percentage	0	1.90%	3.90%	42.70%	15.50%	35.90%	100%

## Appendix 12: Employee Engagement

Likert Score → Question ↓	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing System	TOTAL
I am satisfied with the culture of my workplace.							
Frequency	14	12	22	14	4	37	103
Percentage	13.60%	11.70%	21.40%	13.60%	3.90%	35.90%	100%
I am satisfied with my overall job security.							
Frequency	8	26	14	12	6	37	103
Percentage	7.80%	25.20%	13.60%	11.70%	5.80%	35.90%	100%
I see myself working in the same company in the next 2 years.							
Frequency	16	20	18	6	6	37	103
Percentage	15.50%	19.40%	17.50%	5.80%	5.80%	35.90%	100%
I am aligned with my company's overall objectives.							
Frequency	4	12	16	24	10	37	103
Percentage	3.90%	11.70%	15.50%	23.30%	9.70%	35.90%	100%
I would refer my company to my friends and family.							
Frequency	10	14	16	16	10	37	103
Percentage	9.70%	13.60%	15.50%	15.50%	9.70%	35.90%	100%
I look for new innovative ways to solve problems.							
Frequency	0	0	4	42	20	37	103
Percentage	0	0	3.90%	40.80%	19.40%	35.90%	100%
I am comfortable working without supervision.							
Frequency	0	0	4	30	32	37	103
Percentage	0	0	3.90%	29.10%	31.10%	35.90%	100%

### Appendix 13: Reliability Test on Sample

Question Number	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
5	104.67	288.75	0.897	.	0.908
6	104.89	304.611	0.507	.	0.913
7	105.22	285.194	0.822	.	0.908
8	105.56	300.278	0.407	.	0.915
9	105	294.75	0.594	.	0.912
10	105.33	316.75	0.052	.	0.921
11	105	293	0.708	.	0.91
12	105.11	313.111	0.133	.	0.919
13	104.67	303.25	0.465	.	0.914
14	103.56	324.278	-0.213	.	0.919
15	105.22	302.694	0.353	.	0.916
16	105.11	299.111	0.455	.	0.914
17	104.89	320.611	-0.021	.	0.919
18	104.44	299.028	0.617	.	0.912
19	105.22	291.944	0.597	.	0.912
20	105	299	0.444	.	0.914
21	104.89	294.111	0.507	.	0.913
22	105.44	294.528	0.666	.	0.911
23	103.78	302.194	0.712	.	0.911
24	104.56	293.778	0.881	.	0.909
25	104.33	303.75	0.599	.	0.912
26	104.67	306.75	0.287	.	0.917
27	104.67	310.75	0.368	.	0.915
28	105.22	301.944	0.45	.	0.914
29	105.56	305.278	0.868	.	0.912
30	103.89	310.611	0.558	.	0.914
31	106.11	299.111	0.561	.	0.912
32	106.11	304.861	0.462	.	0.914

33	106.22	298.194	0.727	.	0.911
34	105.33	289.75	0.745	.	0.909
35	105.67	296.25	0.539	.	0.913
36	104	309.5	0.709	.	0.913
37	103.78	319.694	0.018	.	0.918

