A SURVEY OF VOLUNTARY TURNOVER INTENTIONS OF
INFORMATION TECHNOLOGY PROFESSIONALS IN KENYA

BY

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UNITED STATES INTERNATIONAL UNIVERSITY

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Partial Fulfillment of the Requirement for the Degree of Masters in
Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY

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STUDENT’S DECLARATION

I, the undersigned declare that this is my original work and has not been submitted to any other college, institution or university other than the USIU in Nairobi for academic credit.

Signed: ____________________________  Date: ____________________________
Victoria M. Njeru (Id 629635)

This project has been presented for examination with my approval as the appointed Supervisor.

Signed: ____________________________  Date: ____________________________
Dr. Cyrus Wekesa

Signed: ____________________________  Date: ____________________________
Dean, Chandaria School of Business
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ABSTRACT

The aim of the study was to examine the factors that influence the turnover intention of IT employees in Kenya. The study particularly wanted to establish how skill levels and experience of IT employees affect turnover intentions in the IT industry; determine how demographic variables influence turnover intentions of IT employees; and assess the influence of the type of organization on the turnover intention of IT employees.

The researcher used a combination of Descriptive and Explanatory research designs in order to summarize the findings and infer relationships between the various factors influencing turnover intentions. A researcher-developed survey instrument, an online questionnaire was used to collect data from a random sample of 62 IT professionals. From this target group, 46 respondents completed the questionnaire fully (a 74.2% response rate at 95% confidence interval). The software program, Statistical Package for the Social Sciences (SPSS) was used for comprehensive data analysis. Likert scales questions were used to measure respondents' reasons for turnover intention.

Both descriptive and inferential statistics were used for analysis and it was evident there are significant relationships between the variables and turnover intention. A combination of cross tabulations and chi square test at p<=0.5 level of significance were used for the analysis. The results found that skills and experience did influence turnover intentions. 82.5% of employees with the most certifications were likely to leave their current employers unlike the 33% with just one certification. In addition, age was another key determinant with 78% of the younger employees showing higher turnover intent. The type of organization also influenced turnover intent with non–IT and private sector firms being the least preferred by IT professionals.

From these findings, several conclusions were made. Firstly, employees with newer certifications are more likely to turnover. Secondly, newer employees with less experience are also more likely to turnover. Thirdly, employees in non-IT firms and in the private sector were also more likely to turnover. With this knowledge, the researcher recommended that project managers and managers invest in training, better work life policies, working environments and incentives to avert against dysfunctional turnover by addressing the issues that may cause voluntary turnover.
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<tr>
<td>CCNA</td>
<td>Cisco Certified Network Associate</td>
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<td>CompTIA</td>
<td>Computing Technology Industry Association</td>
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<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<td>HRM</td>
<td>Human Resource Management</td>
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<td>IS</td>
<td>Information Systems</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>ITAA</td>
<td>Information Technology Association of America</td>
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<tr>
<td>MCTIP</td>
<td>Microsoft Certified IT Professional</td>
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<td>PMP</td>
<td>Project Management Professional</td>
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<td>POS</td>
<td>Perceived Organizational Support</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

The continuing high voluntary turnover rate of information technology (IT) personnel is a major managerial problem, which project managers who lose staff in the middle of critical projects have to deal with. According to Murphy (2009), the IT industry still faces huge labour shortfalls. Scholars have argued that IT human capital represents a strategic resource for firms, and has the ability to bestow competitive advantage (Wade & Hulland, 2004; Bharadwaj, 2000). In this regard, the turnover and retention of IT professionals persists as an important managerial concern (Luftman & McLean, 2004).

IT turnover remains a chronic problem (Adams, Clark, Goldman, & Jester, 2006). The problem worsens as the IT labor market tightens due to continuing decline in the supply of IT graduates, baby boomers retiring from the IT workforce, and the exponential growth of IT applications in organizations (Hecker, 2005). Turnover has become a major issue for management in the 21st century particularly in the tight labor market (Batt & Valcour, 2003). In the past few years much attention has been given towards employee’s turnover behavior and the major causes that lead towards the turnover intention of employees (Richer, Blanchard & Vallerandi, 2002). Due to higher turnover intention, many organizations have taken it seriously and started to invest in their employees in terms of orientation, training, maintaining, developing and retaining them at any cost (Ongori, 2007) because turnover has great impact on business (West, 2007).

Studies done show that the turnover rates for IS professionals exceeds that of other professionals, with estimates varying between 25 percent and 35 percent (Jiang & Klein, 2002; Moore & Burke, 2002). This phenomenon can best be described as “turnover culture” defined as “the systematic patterns of shared cognitions by organizational or subunit incumbents that influence decisions regarding job movement” (Abelson, 1993, p. 388). According to Moore and Burke (2002), the particularly high turnover rate within IT professions results from high marketability of IT job skills, such as network and database management skills and enterprise resource planning (ERP) system skills.
Moore and Burke (2002) also indicated that “romance of turnover” is another important contributor to the high turnover culture of IT industries. Departing IT professionals are often observed as heroes who have successfully found a way out for better opportunities. Turnover is romanticized as the ultimate solution to various problems and issues encountered by IT professionals. Turnover of IS personnel is often regarded as dysfunctional for organizations because it incurs significant direct costs related to recruiting and replacement, and indirect costs related to retraining, as well as loss of firm knowledge and experience. It also results in the over working of the staff who remain. Turnover can also be attributed to the belief among IT professionals that working in the same organization for too long can render them obsolete.

To this end, IS and organizational behavior researchers have examined a range of individual level factors as explanatory variables for intention to stay and turnover among IS and other populations of employees. These include studies on managerial versus technical career anchors (Hsu, Chen, Jiang, & Klein, 2003), perceived ease of movement, job dissatisfaction, and organizational commitment (Igbaria & Greenhaus, 1992; March & Simon, 1958; Mobley, Griffeth, Hand, & Meglino, 1979; Hom & Griffeth, 1995). Researchers have also suggested that deliberate managerial actions, including IT organizations’ human resource management (HRM) practices, such as compensation and training (Agarwal & Ferratt, 2002), and internal work characteristics such as job design (Thatcher, Stepina & Boyle, 2002), are important determinants of intention to stay and turnover. Finally, IS scholars have examined the effects of discrepancies between individual needs and what the organization supplies as determinants of turnover intention (Jiang & Klein, 2002).

Many models have been developed over the years to try to explain the relationship between employee turnover and factors that influence them to leave. A brief summary of some of the main models is given below providing a general understanding of turnover before delving deeper into a more specific look at turnover within the IT industry.

Perhaps the most influential is the theory of organizational equilibrium (March & Simon, 1958). March and Simon (1958) argue that turnover occurs when individuals perceive that their contributions to an organization exceed the inducements they receive.
from that organization. This inducement–contribution balance is broadly influenced by two factors: one’s desire to move, which is generally a function of one’s satisfaction with the work environment, and one’s ease of movement, which is influenced by macro- and individual-level factors that determine employability. Many subsequent turnover theories build on March and Simon’s model. They either expand on the determinants of desire to move and ease of movement (Porter & Steers, 1973; Price, 1977) or theorize mechanisms that explain turnover decisions (Hom, Caranikias, Prussia, & Griffeth, 1992; Porter, Crampon & Smith, 1976).

Building on the organization equilibrium theory of turnover, Porter and Steers (1973, p.154) put forward that met expectations are a key determinant in turnover decisions. The concept of met expectations theory is defined as “the discrepancy between what a person encounters on the job in the way of positive and negative experiences and what he expected to encounter”. The set of expectations a person has of an employer may include rewards, advancement, and relations with peers and supervisors. Specifically, Porter and Steers (1973) argue that dissatisfaction arising from the employer failing to meet a set of expectations is likely to cause turnover by an individual.

Mobley’s (1977) linkage model, which has received substantial empirical support in the management literature for example, Hom et al. (1992), proposes a series of intermediate linkages between job satisfaction and turnover. Specifically, job dissatisfaction is proposed to trigger a series of withdrawal cognitions for example thoughts of quitting, job search utility evaluations, and job search intentions that result in job search behaviors. When an alternative job is found and evaluated as more attractive than the current job, an individual develops an intention to quit and, consequently, leaves the organization.

In recent research, Lee and Mitchell (1994) propose an unfolding model of turnover, which adopts a more naturalistic approach to making turnover decisions. This model highlights four different psychological paths that people take when quitting. Specifically, Lee and Mitchell (1994) propose that the process of turnover is often triggered by a shock, an event that jars employees toward deliberate judgments about their jobs. The shock is then interpreted and integrated into the person’s system of beliefs and images. When a shock triggers the enactment of a preexisting plan of action,
the person quits without considering personal attachment to the organization or job alternatives. Alternatively, if a shock does not trigger a preexisting script, the person undergoes additional cognitive deliberations, such as evaluations of job satisfaction and job alternatives. Thus, a major contribution of the unfolding model is the incorporation of an “impulsive” route to quitting, in addition to the rational decision-making process proposed in traditional turnover models.

While the unfolding model examines how and why individuals make the decision to leave an organization, it does not directly address why some individuals are reluctant to quit (Mitchell & Lee, 2001). Accordingly, Mitchell et al. (2001) advances the job embeddedness theory of turnover to argue that individuals stay with their organizations because they are enmeshed in a web that prevents them from quitting their jobs. Individuals are embedded when they have strong links with people or activities, have better fit with their jobs and communities, and need to make greater sacrifices if they leave their organizations. Unlike most turnover theories, job embeddedness theory includes non-work factors that affect individuals’ ease of leaving an organization or a community. Research shows that job embeddedness explained additional variance in voluntary turnover beyond that explained by traditional antecedents such as organizational commitment, job satisfaction, and job alternatives (Mitchell et al., 2001).

In summary, most traditional turnover theories are traced to March and Simon’s theory of organizational equilibrium. Mobley (1977), for example, extends March and Simon’s theory by explicating the withdrawal cognition and job search behaviors between job satisfaction and turnover. In particular, Mobley (1977) highlights the proximal relationship between turnover intention and turnover behavior that provides the basis for this study’s focus on turnover intention. The unfolding model (Lee & Mitchell, 1994) and job embeddedness (Mitchell et al., 2001) theories offer alternative perspectives, suggesting that not all individuals leave because they are dissatisfied, or because they find better jobs. Rather, turnover can occur impulsively and can be precipitated by events that are unrelated to work.

Turnover in the Kenyan market has not been widely researched in all industries and scanty information exists on the labor trends. This research seeks to carry out a study of the turnover intentions in the country and in particular in one of the most promising
areas of Information Technology. In light of the existing literature, this research will build on aspects of these models by considering individual, firm and external variables that influence voluntary turnover intentions or stay in the IT industry. It will introduce new variables unique to the IS professionals, to help us understand why IT professionals turnover.

1.2 Statement of the Problem

Previous turnover studies as mentioned have examined various factors that influence the turnover intention of IS personnel (Niederman, Sumner, & Maertz, 2006; Rutner, Hardgrave, & Mcknight, 2008). These factors include job satisfaction (Baroudi, 1985; Bartol, 1983; Guimaraes & Igbaria, 1992); fairness of rewards, pay and latitude equity (Bartol, 1983; Dittrich, Cougerand, & Zawacki, 1985), organizational commitment (Baroudi, 1985; Bartol, 1983), career opportunities (Guimaraes & Igbaria, 1992), role ambiguity and conflict (Baroudi & Igbaria, 1995) and a few demographic variables, such as age and gender (Guimaraes & Igbaria, 1992).

It is important for management to learn what factors influence an employee’s decision to leave an organization and to address the major reasons for turnover by designing retaining policies accordingly. Effective career planning is essential to gaining control of the turnover problem (Thite, 2006).

The previous body of research presented here is mainly carried out in the developed world. This research seeks to add to the body of knowledge by finding out how the same factors influence employees in developing nations like Kenya. The research will seek to find out the reasons influencing turnover intentions of IS professionals in Kenyan companies.

1.3 Purpose of the Study

The study aims to examine the factors that influence the turnover intention of IT employees in Kenya.

1.4 Research Questions

These are the main questions that the research sought to investigate
1.4.1 How do skill levels and experience of IT employees affect turnover intentions in the IT industry?

1.4.2 How do demographic variables influence turnover intentions of IT employees?

1.4.3 How does the type of organization influence the turnover intention of IT employees?

1.5 Importance of the Study

The research will provide valuable insights into the factors influencing turnover of staff and will benefit various stakeholders as described below.

1.5.1 Human Resources Management

They can use the findings from the research to come up with better retention policies and better job –skills matching strategies to control turnover, in turn controlling costs of re-training and recruiting.

1.5.2 IT and Project Managers

It will help them understand the IT labor market dynamics and create an enabling environment in the organization where employees can develop themselves, feel embedded in the organization and be of greater value to the company.

1.5.3 IT personnel

Employees working in the IT industry will also benefit from the research carried out, as they will be in a position to gauge and see how well an organizations HR strategies or policies fit in line with their career plan.

1.5.4 Academicians and Researchers

The study will extend the body of knowledge in the area, by looking at the turnover situation in Kenya. It will also seek to introduce new knowledge on variables not previously investigated in turnover intentions.
1.6 Scope of the Study

The research was carried out in Kenya, and targeted IT professionals of both genders between the ages of twenty five to fifty five. The IT professionals sample was drawn from all industries and sectors. The study was conducted over the period of three months from February to March 2012.

1.7 Definition of Terms

1.7.1 Turnover

Process in which employees leave an organization and have to be replaced (Mavis & Jackson, 2008)

1.7.2 Dysfunctional turnover

The level that produces a divergence between the organization's optimal balance of costs associated with turnover and the costs associated with retaining employees. (Abelson & Baysinger, 1984).

1.7.3 Turnover Culture

Turnover culture is defined as “the systematic patterns of shared cognitions by organizational or subunit incumbents that influence decisions regarding job movement” (Abelson, 1993, p. 388)

1.7.4 Information systems

A set of interrelated elements or components that collect (input), manipulate (process), store and disseminate (output data and information to provide corrective reaction (feedback mechanism) to meet an objective (Stair & Reynolds, 2008)

1.8 Chapter Summary

In this chapter, the researcher discussed the background of the concept of turnover intentions. Unfortunately, the current body of knowledge is mostly based on western organizations with very little information from our own country. This study sought to
examine whether the same factors in the West influence the turnover intentions of information system (IS) personnel in Kenya. The scope of the study was limited to both male and female IT/IS professionals in Kenya. The study will be of importance to various stakeholders including Human resource managers, employees, IT management and finally researchers.

Chapter two was dedicated to Literature Review and presented the existing literature on turnover models and concepts.

Chapter three dwelt with the research methodology applied in the study; it included the research designs, population, sample size and sampling techniques as well as methods of data collection and data analysis

Chapter four presented the data analysis and presentation of the results. It analyzed the response rate and demographic characteristics of the respondents. Quantitative statistics using inferential statistics of chi square were used to analyze the data and present findings in graphs and tables.

Chapter five summarized and presented discussions on the findings. In closing, the chapter drew several conclusions from the study and proposed recommendations and areas for further research.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Based on the above the literature review will explore studies carried out specifically in the area of IT turnover intentions, guided by three research questions. It will seek to find what various authors have studied and found out about turnover intentions and be the guideline for further research as per the reported findings.

2.2 Influence of Skill Levels and Experience on Turnover Intentions

2.2.1 Skill Levels Effect on Turnover Intentions

Human capital theory posits that an individual’s productivity is associated with investments in human capital (Becker, 1975). Human capital refers to an individual’s productive competencies resulting from training and experience, which vary in specificity from the general to the specific. General IT human capital, in the form of IT skills, education and experience, is transferable and increases one’s productivity across firms. IT education and experience also serve as signals to potential employers of an IT professional’s competencies and productivity. In contrast, firm-specific human capital increases one’s productivity within a specific organization and is not readily transferable outside this domain (Galunic & Anderson, 2000).

Joseph, Ang and Slaughter (2006) state that general capital such as training and experience in Java programming increases an IT professional’s productivity across firms. However, firm-specific human capital in the form of training and experience in an organization’s workflow systems increases an IT professional’s productivity within a particular organization. Such firm-specific training and experience is not readily transferable across organizations.

The nature of IT jobs requires incumbents to possess General IT human capital such as IT competencies, for example systems analysis, design, software engineering, and network management (Ang et al., 2002). These IT competencies are typically acquired
through formal IT education by majoring in IT in college and refined by accumulating actual on-the-job experience in IT. According to human capital theory, general IT human capital increases an individual’s productivity and value across all organizations. This, in turn, translates into more job alternatives, and subsequently a higher probability of turnover (Trevor, 2001).

Skills here are referenced by the level of qualification that an IT professional has as measured by the number of certifications. IT certifications, no matter whether they are vendor-specific like Microsoft’s MCITP or Cisco’s CCNA or vendor-neutral like CompTIA’s Security or Project Management Institute’s PMP, have an industry-wide appeal since the knowledge and skill measured by them are used broadly across a great variety of companies. Hence, we can consider them as one form of general human capital possessed by IT professionals (Quan, Daterro, & Galup, 2007). Quan and Cha (2010) stated that more recently acquired certifications may have a higher human capital value, and hence an elevated influence on IT professionals’ turnover intention. The more a certification is marketable or usable across the industry the higher the turnover intention.

Mohlala, Goldman, and Goosen (2012) stated that lack of employee development results in skills shortage which in turn influences turnover intention. The topic of skills shortages has created conflicting views with information technology experts about whether or not the skills shortages is a genuine problem in the industry or results from a lack of training. Experts who oppose the view of skills shortages state that the existing skills gap problem can be attributed to employers not being willing to train their employees. Dubie (2008) explains that one of the contributing factors to information technology skills shortages is that organizations are not willing to invest time and money to train their employees. This results in advances in business and technology outpacing the ability for information technology professionals to keep up. The type of skills needed in the industry change dramatically from time to time.

This means that as the market shifts, the set of skills that were once marketable and recognized as specialized skills, are seen as common skills. Also the advancement in technology means IT professionals need to keep on upgrading their skills. According to Gaylard, Sutherland and Viedge (2005), the life span of information technology
knowledge is approximately 2.5 years, and is rapidly decreasing all the time. This decrease is the result of advancing technology that is now used to store, organize and easily retrieve existing information.

However, Hira (2008) raises the concern that skills shortages must not be confused with the shortage of unique skills required to support the emerging technologies, because these skills, by definition, will always be in short supply.

2.2.2 Experience and Turnover Intentions

Treating IT experience as another form of human capital, Joseph et al. (2006) found an inverted U-shaped curvilinear relationship between IT experience and turnover intention. That is, the probability of turnover increases initially with the total number of years of IT experience, then starts to decrease once IT experience reaches a certain level. The reason for this relationship can be explained as follows; initially new entrants into the IT profession are unlikely to turnover because these individuals do not possess the requisite on-the-job IT experience valued by other firms. Without this requisite stock of General IT human capital, an IT professional has little mobility within the IT profession since there will be few job alternatives. IT professionals with higher levels of IT experience increase their productivity across all organizations. This, in turn, increases their value, which translates into a higher probability of turnover (Ang & Slaughter, 2004). Although individuals with high levels of IT human capital (in particular experience) would have more job alternatives available to them, a decline in likelihood of turnover over time is expected. Since organizations view high levels of human capital as a signal of high levels of productivity, organizations are more likely to value IT professionals with high levels of IT human capital. Organizations will provide greater rewards to highly productive individuals to entice them to remain with the organization (Ang et al., 2002).

Joseph et al. (2006) supports the same inverted U curve relationship between IT experience and turnover intent saying that the probability of turnover starts to diminish once the IT experience reaches a certain level, at which companies are willing to provide enough incentives to retain those high-value IT professionals.
In contrast, Quan et al. (2010) do not find the inverted U curve relationship between IT experience and turnover intention found by (Joseph et al., 2006). Only a negative linear relationship between IT experience and turnover intention was identified.

From the above it is clear that IT experience is dual faceted comprising of both general (at the early stage) and firm-specific (at the later stage) human capital. Specifically, most of the experience IT professionals obtain in the early stages of their career is a stock of standard IT knowledge, such as lower-level analysis, design, coding, and implementation of the software. The skill set and standard knowledge can be easily transferred to another firm. As IT professionals move into the later stage of their career, their IT experience increasingly becomes more firm specific. For example, they are now more involved in using IT for business decision-making and firm-specific problem solving (Quan & Cha, 2010). The accumulation of firm-specific human capital may result in reduced turnover intention (Joseph et al., 2007).

Another study found that turnover is just as likely for IT professionals with long tenure in organizations, and hence possessing valuable firm-specific human capital, as it is for new recruits. However, firm-specific human capital derived from long tenure within an organization is important for IT professionals to perform effectively at work, and it is costly for organizations to replace firm-specific human capital (Joseph, 2006).

In support of the previous studies, Becker (1975) also noted that unlike General IT human capital, firm specific human capital is less transferable across organizational boundaries and has little value outside the firm. For example, the relationships that an IT professional builds while working in a particular firm do not transfer to other firms. Since prospective employers are unlikely to reward competencies that do not contribute to increasing the prospective firm’s productivity, the likelihood of an individual turning over is reduced when individuals have higher levels of firm specific human capital.

The relationship between turnover and training was identified as being complex (Martin, 2003). He suggested that establishments that enhance the skills of existing workers have lower turnover rates. However, turnover is higher when workers are trained to be multi-skilled, which may imply that this type of training enhances the prospects of workers to find work elsewhere. In a British study examining the impact of
training on mobility, concluded that, in aggregate, training has on average no impact on mobility (Green, Alan & Francis, 2000). However, training that is wholly sponsored by the individual or their family is on balance likely to be a prelude to job search. In contrast, when employers pay for training the downward effect on mobility is more likely.

2.3 Influence of Demographic Variables on Turnover Intentions of IT Employees

Under demographics, the variables, which have been studied, are the effects of age, gender and marital status on the turnover intention of IT employees.

2.3.1 Marital Status and Gender

A study by Doran et al. (1991) found that marital status is negatively related to IT turnover intention because married employees are likely to have greater financial burdens and need to consider their spouses’ employment, compared to their single counterparts. These additional considerations are likely to result in less desire to move and lower ease of movement. In contrast to age and marital status, gender has received more substantive interest in IT research on turnover.

IT scholars have generally argued that female IT professionals experience greater desire to move because of restricted opportunities in promotions (Baroudi & Igbaria, 1995; Igbaria & Chidambaram, 1997). Female IT professionals are also likely to perceive less ease of movement because of the fewer opportunities or resources to develop their skills and careers, as well as the general stereotype of IT as a male dominated profession (Ahuja, 2002). These arguments are consistent with the extant gender research showing that women tend to hit a glass ceiling because of greater structural barriers and fewer work opportunities (Gutek, 1993). It results in less job satisfaction and loyalty to their organizations (Stroh & Reilly, 1997).

According to statistics from the Bureau of Labor Statistics BLS (2003), women represent 47 percent of the total workforce, but only 35 percent of the IT workforce in America. Under representation has been attributed to insufficient women entering the IT workforce as well as too many of them leaving the IT workforce. Female scientists and engineers in industry are more likely to leave their technical occupations and the
workforce altogether than women in other fields. Some preliminary work has been done to identify the key barriers to the retention of women in the IT workforce (CAWMSET, 2000). The barriers include lack of role models or mentors, exclusion from informal networks, stereotyping, discrimination, unequal pay scales and inadequate work/family balance (ITAA, 2000). Another key aspect that will affect turnover is the quality of working life, which in turn would influence turnover intentions. Based on previous studies, if the Quality of working life (QWL) is poor, turnover intentions are higher. A study by Baroudi and Igbaria (1995), Igbaria and Greenhaus (1992), found that women in IT jobs reported poorer QWL than men in IT jobs leading to greater turnover for women in IT.

However, in a different study by Schoepke, Hoonakker and Carayon (2000), women reported a higher QWL and it was expected that the turnover intent would be lowered. Surprisingly; women were still found to have a higher turnover in the IT workforce. Based on these arguments, the female IT professionals are more likely to perceive greater desire to move because of less job satisfaction and lower ease of movement.

In contrast, Joseph, Ng, Koh and Ang (2007) also found that male IT professionals appear more inclined to leave the organization, in part due to lower job satisfaction, compared to their female counterparts. The differing views mean more research needs to be carried out to find out what the underlying factors may influence turnover of women.

Other than the quality of working life, perceptions and attitude towards IT also played a role in turnover intention. Tapia and Kvasny (2004) conducted a literature review and found that women perceive the IT workplace negatively and one lacking the equality they require in a job. They framed the work as difficult, isolated, lacking necessary social interaction, and lacking work-family balance. In addition, they had a common perception that the IT industry is a male and a stereotypical “geek and nerd” domain. In their IT review essay, Soe and Yakura (2008) noted that organizational culture and climate could significantly affect women’s participation and employment outcomes. They suggested that the larger percentage of men rather than women being hired and promoted in IT organizations leads to perceptions that the organizational climate is unfriendly towards women. Bartol and Aspray (2006) noted that women perceive the IT
workplace environment as male dominated and not welcoming to women. McCracken (2000) reported that women tend to leave a company if they find the male dominated culture dissatisfying.

Another study by Wardell, Sawyer, Reagor, and Mitory (2005) found that women are nearly three times as likely as men to leave the IT workforce. Their findings showed that although women are able to gain the necessary skills to enter the IT workforce, they are more likely than their male counterparts to leave the IT industry. Supporting literature has also identified cultural fit, expectation gaps, mentors, role models, career satisfaction, organizational commitment, role ambiguity, and role conflict as pertinent factors that affect the retention of women in the IT workforce (Bartol, Williamson, & Langa, 2006; Riemenschneider, Armstrong, Allen, & Reid, 2006; Tapia & Kvasny, 2004). Bartol et al. (2006) found that female IT student graduates have a lower professional commitment than male IT students do. Furthermore, they found that gender and professional experience interact to influence professional commitment, and professional commitment is lowest among female newcomer IT professionals.

In contrast, Yu (2008) found that work life balance policies are positively associated with the job tenure of the female employees, and the practices of such policies have a great effect on the turnover rate of employees. Work-life balance policies help in reducing the stress, provide a good work place where, there is less chance of accidents in the working, and provide a fair platform for every employee, ultimately enhancing productivity (Yasbek, 2004).

According to, Andreassi and Prottas (2005), organizations should take into consideration and apply policies that manage a balance between employees work and their lives. Therefore, the organizations are giving an increased intention to adopt those policies, which can reduce the turnover of employees (Hom & Kinicki, 2001). Bashir and Ramay (2008) have also found an increasing importance of implementing such friendly policies. Yasbek (2004) found that nowadays companies are more aware about the work life balance and implementation of friendly policies. This is because complex and additional working hours increase the stress and turnover intention among employees (Ling & Phillips, 2006). According to Forsyth and Polzer-Debruyne (2007), when employees feel that, the organization is supportive and providing them work life
balance it enhances job satisfaction and reduces work pressure leading to reduction in turnover intention.

2.3.2 Age

Joseph et al. (2007) in his study of IT turnover found that older IT professionals are less likely to quit even though they are less satisfied with the job, in part due to reduced job alternatives. Earlier works of Levinson et al. (1978) argued that older employees are more satisfied with their jobs and organizations, and hence have lower desire to move. The underlying rationale is that many upper level administration opportunities are available to older rather than to younger employees, thus increasing the prestige and confidence associated with advancing age (Miller & Form, 1951). However, given the changing IT technology context and skills sets, older IT professionals may experience less job satisfaction than their younger counterparts may (Sturman, 2003). This is because the reduced productivity of older employees may result in them not being able to cope with the demands of work such as updating their skills to keep pace with the changing technology context (Gist, Rosen, & Schwoerer, 1988).

Joseph et al. (2007) found that for ease of movement, age should to have a negative relationship. For example, individuals may experience more constraints in leaving the organization as family responsibilities for example care for children or parents increase with age, thus reducing ease of movement Finegold et al. (2002). Moreover, the general stereotype that older employees are more vulnerable to obsolescence (Gist et al.,1988) is likely to lower the perception of alternative employment for IT professionals.

A study by Quan and Cha (2010) on how age affects turnover intentions compared IT professionals at different stages of their career. They divided them into three groups: younger (less than 29 years old); middle-aged (30-45 years old); and older (45 years old, the base group). The reason for doing this was based on the belief that IT professionals at different career stages may have different turnover patterns. Quan and Cha (2010) found that the middle-aged professionals were the most mobile group, which seemingly contradicts the common belief that the younger an employee is the more willing and able they are to change jobs. Younger employees at the beginning of their careers focus on gaining experience and developing marketable job skills in their
current jobs so they are less likely to move. As middle-aged IT professionals become more experienced and skilled, the job market becomes much more favorable for them. In addition, their turnover intentions increase and, finally, job stability and security gradually become the primary concerns of older IT professionals and moving becomes less desirable for them. This interaction of career development and turnover is the three-phase career life cycle of IT professionals.

2.4 Type of Organization and Turnover Intention of IT Professionals

Organizational or firm characteristics also influence the turnover intentions of employees. Past studies on human resource practices, industry types as well as the job and workplace characteristics were reviewed.

2.4.1 Private Versus Public Sector

Differences in the type of organization whether private or public or IT or Non –IT would have an effect on the turnover intentions because of varying job and work place characteristics. These characteristics would affect organizational commitment and in turn affect turnover intentions. Previous studies show that there is evidence that job satisfaction rates differ amongst members of private sector organizations compared to those in the public sector (Joshi, 1998) and there are differences in various workplace attitudes and behaviors (Markovits, Davis, & Van Dick, 2007). In particular, public sector employment tends to offer lower levels of pay but higher levels of job security, pensions, and flexibility (Booth & Frank, 2005). These differences could have an impact on how the relationships between job satisfaction, organizational identification, and turnover intention, such that satisfaction may play a larger role in turnover intention in both public and private sector organizations.

More recently, it has been observed that as with any other public sector employee, IT employees are subject to layoffs, furloughs, loss of benefits, and payroll deductions (Shropshire & Kadlec, 2012). More importantly, tacit benefits associated with public-sector work are rapidly disintegrating. Shropshire and Kadlec (2012) found that job satisfaction, perceived organizational support, affective commitment, perceived supervisor support, and organizational rewards are particularly important to IT professionals working in government.
They also found that as the factors which draw many individuals into public service are eroded, turnover intention will increase. At the same time, private sector demand for IT professionals is increasing. The net result is that public sector IT workers have little motivation to remain in their current positions, with plenty of intriguing job opportunities in the private sector. As such, it is expected that the exodus of talented IT professionals into the private sector will continue (Coombs, 2009). This leads to the question of who will replace them. Those who have seen their parents, friends, and relatives lose their pensions and benefits would doubt the long-term commitment of public organizations to their employees (Shropshire & Kadlec, 2012).

People previously considering encore careers in public service may reconsider their perceptions of job satisfaction and commitment among public-sector workers (Shropshire & Kadlec, 2012). Unable to appeal to future organizational citizens and deliver generous benefits, the most salient route for public sector recruiting will involve overt enticements such as increased salaries. Having tarnished the perception of being a stable, supportive place to work, this may be the only immediate option. Also given the level of competition for skilled IT labor in the private sector, this could be very costly. Although market demands, salary increases, and structural changes could lure IT workers back into the public sector, it is less likely that they will form long-term organizational commitments (Shropshire & Kadlec, 2012).

### 2.4.2 IT versus Non-IT Firm

Previous research also finds that supplementary person-organization fit is a significant predictor of turnover (Kristof-Brown, 2005). IT professionals in a non-IT firm may feel less supplementary person-organization fit than they would in IT firms. Joseph et al. (2007) has suggested that role ambiguity and role conflicts within the firm are two major contributors to turnover intention.

Studies on job characteristics, in particular role stressors in the organization such as workload show a positive relationship to turnover intention via reduced job satisfaction because of work exhaustion (Bakker, Demerouti & Euwema, 2005). Moore (2000) also reported a positive direct effect of work exhaustion on IT turnover intention.
Individuals’ perceptions of their organizations can also affect their decision to stay with, or leave the firm (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). In existing IT studies, perceived organizational factors that have been examined include advancement-related constructs that is promotability and hierarchical position and rewards in particular fairness of rewards, organization-based rewards and pay. Both promotability and hierarchical position were examined for their direct relationships with turnover intention (Igbaria & Siegel, 1992). In contrast, fairness of rewards, organization-based rewards, and pay were examined for their direct effects (Igbaria & Siegel, 1992), as well as indirect effects on turnover intentions, mediated via job satisfaction (Paré & Tremblay, 2000).

Another two recent IT turnover studies at the firm-level of analysis found that internal labor markets (Ang & Slaughter, 2004) and human resource practices (Ferratt, Agarwal, Brown & Moore, 2005) do influence firms’ IT turnover rates. High levels of perceived organizational support are believed to persuade thoughts of trust and strong feelings of classification with the organization (Rhoades & Eisenberger, 2002). Since employees often respond positively to the support they receive from their organizations, it is expected that perceived organizational support would encourage a strong longing to stay with the organization (Sherony & Green, 2002).

According to organizational support theory, if employees perceive more support from the organization, they are likely to develop more positive attitudes towards the organization.

Since employees often respond positively to the support they receive from their organizations (Sherony and Green, 2002), it is expected that perceived organizational support (POS) will encourage a strong longing to stay with the organization. Eisenberger et al. (1990) perceived that individuals with high POS would be less likely to search for alternative employment in other organizations. On the other hand, Allen et al. (2003) discovered that perceived organizational support was negatively correlated with turnover intention and actual turnover.

Joseph et al. (2007) studied three factors sacrifice, fit, links of an IT professional within the organization, and used the job embeddedness theory to propose that these perceived
organizational factors affect turnover intention via both desire to move and ease of movement Mitchell et al. (2001). Specifically they argued that individuals’ advancement, hierarchical position, and rewards in the firm can influence the degree of sacrifice if they leave the organization. Other organization related factors such as fairness of rewards and human resource practices may affect individuals’ fit with the firm, while social support and work unit size may influence the number of links individuals have with others in the organization. All these factors can increase individuals’ embeddedness within the organization Mitchell et al. (2001). These factors, in turn, will reduce the desire of individuals to move, as they enjoy the benefits provided by their organization, and will reduce their ease of movement by increasing their attachment to their current employment.

Supportive of these arguments, Mitchell et al. (2001) found that job embeddedness was positively related to job satisfaction and organizational commitment and negatively related to ease of movement hence reducing turnover intentions. Quan and Cha (2010) in their study of the factors influencing turnover intentions at the firm level found out that IT professionals in IT firms are found to have greater desire to move than those in non-IT firms. One possible explanation is that as IT becomes increasingly a general function and better recognized in all industries, role ambiguity diminishes for IT professionals in non-IT firms. As a result, they experience less role ambiguity and role conflicts, and feel less pressured to move to IT firms. Conversely, IT professionals in the IT industry may have a greater exposure to the so called “turnover culture” in the IT field that glorifies job movement and feel more instituted pressure to change jobs. Another possible explanation is that, on one hand, the IT industry is highly competitive and overwork is the norm for IT professionals who face constant deadlines and speed-to-market pressures for developing and marketing new technology. On the other hand, the working environment for those within non-IT firms whose main task may be simply end-user support and system maintenance may not be as demanding. Quan and Cha (2010) found that IT professionals in IT firms are more associated with work exhaustion than those in non-IT firms. In literature, stress is defined as a nonspecific response of the body to a stimulus or event (Kavanagh, 2005). Stress and work exhaustion play an important role in increasing turnover of employees (Moore, 2000).
and emotional regulation both influence turnover intention and stress is also an emotion that decreases job satisfaction and increases turnover (Côté & Morgan, 2002).

Work stress has become a major cause of voluntary turnover in the organizations leading to loss of employees (Zhang & Lee, 2010). Many researchers have found that the greater the amount of stress, the higher would be the turnover intention of employees (Cavanaugh, 2005) and (Cropanzano, Rupp and Bryne, 2003).

2.5 Chapter Summary

In this chapter, the researcher has presented a literature review on the IT turnover intentions guided by the research areas or questions. The guiding research areas were based on three questions. These were how skill levels and experience of IT employees affect turnover intentions of IT professionals, how demographic variables influence turnover intentions of IT employees and whether the type of organization influences the turnover intention of IT employees. In the following chapter, the researcher will discuss the research methodology used in the research.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the researcher defines the research methodology followed. The chapter will also outline the research design used, population and sampling design, the data collection and analysis methods used to get the findings.

3.2 Research Design

The research design defines the plan and structure of the investigation to obtain answers to the research questions. In this study, both Descriptive and Causal research designs were used with the former summarizing variables, and the latter applied to infer causal relationships between dependent and independent variables. Under descriptive research design, Cross-Sectional Studies were undertaken in which data was gathered once over a period of two weeks between February to March 2012. The main data type was primary data collected through a web-based questionnaire. In this study, the independent variables were skill levels and experience of IT employees, demographic variables and type of organization while the dependent variable is the turnover intention of the IT employees.

3.3 Population and Sampling Design

3.3.1 Population

The target population refers to the entire group of people or objects to which the researcher wishes to generalize the study findings. In this study it was all the IT professionals, male and female working across various industries in both the public and private sector in Kenya. A key characteristic of the population was that it included those employees between the ages of 25 to 55 years.
3.3.2 Sampling Design

The sampling design defined the elements required to come up with an appropriate sample. It included identifying the relevant population, parameter of interests under study, the sampling frame, the sampling technique and the sample size.

3.3.2.1 Sampling Frame

The sampling frame included the list of elements from which the sample was actually drawn. It was a complete and correct list of population members. The sampling frame contained the list of full time IT professionals across Kenya registered with a professional computing society between the ages of 25 to 55.

3.3.2.2 Sampling Technique

Sampling involves selecting some of the elements to represent the entire population. Cooper (2001) explains that by drawing a representative sample of a population, one can draw conclusions about the entire population. The sampling technique used was probability sampling. The researcher used the simple random method. This ensured every member of the population had an opportunity to be selected.

3.3.2.3 Sample Size

According to Cooper and Schindler (2001) sample size refers to the number of elements to be included in the survey. The sample size was determined by the variation of the population and confidence levels required. A similar study was done in the US but since it did not use a primary data source, the sample size was very large of 10,085 IT professionals. This study used a sample size of 62. In addition, a confidence level of 95%, and error of margin of 12.41% was used. This was computed using an online sample size calculator (RAOSOFT, 2004).

3.4 Data Collection Methods

The researcher used a primary data source to collect data. The tool used was a researcher-developed tool, a self-administered survey. This provided primary data source unlike other studies that use secondary data. The researcher chose to use a web-based questionnaire. It had four sections with a total of thirty-six questions. Requests to
fill in the online survey were sent via email and social media sites. The web-based questionnaires’ were the best to use for this study because they were much easier to develop and administer reaching most of the IT employees who were all over the country. Another advantage was that the web survey enabled real time viewing of results as respondents filled them in. It also made it easy to send email reminders. For the respondents it was easier to respond because all that was needed was an internet connection. Data from the online survey was also easily captured for analysis with less data entry errors. Once done the data was exported and uploaded to Statistical Package for the Social Sciences (SPSS) computer package for analysis. It was also the best method considering the demanding schedules of the IT employees.

The questionnaire was organized according to the research questions into four main sections general information, skill level and experience in IT, type of organization and Job satisfaction. It comprised of Yes/No questions, multiple choice, open ended and scaled questions.

3.5 Research Procedures

The research procedures involve a detailed description of the steps taken in the conduct of research. The questionnaire was distributed through email with links to the questionnaire website. The first step once the web survey was ready was to carry out a pretest of the questionnaire.

It had clear instructions and so was easy to fill in. The pretest was done using colleagues at work and school working in the IT industry to help the researcher tell if the questionnaire was well structured and also time how long it took to fill in. The researcher distributed 5 questionnaires to 5 respondents, to provide feedback. The questionnaire was then captured on SPSS for analysis prior to being administered. The comments and feedback were used to test correctness, flow and the duration taken to complete the survey. The results helped to determine any issues as interpreted by the respondents, as well as amendments.
The next step was coding the final variables and capturing the results into SPSS to be used on the main survey. Once the review was done, the web questionnaire was ready to be administered.

To ensure quality control of the research process, the researcher relied on the inbuilt features of the online questionnaire. Controls that ensured no student filled the questionnaire more than once were enabled. The most important questions required answers and had to be answered before one could proceed. A high response rate was guaranteed by creating simple questions with multiple choices, sending weekly reminders by email to the respondents and affirming utmost confidentiality of the information, they provided.

3.6 Data Analysis Methods

Data analysis is the process of editing, coding, transcribing, cleaning and summarizing the data from the filled in questionnaires. It first involved preparation of the data by cleaning it, editing, coding and uploading it into SPSS analysis application. The web questionnaire allowed for exporting of the results in Microsoft excel format, which could then be loaded to SPSS. Cleaning ensured extreme values, missing values or erroneous values were identified and properly processed. Both descriptive statistics and inferential statistics were used to analyze the data.

For the descriptive statistics, the researcher used the measures of central tendency (mean, mode, median) and measures of dispersion. For the inferential statistics, hypothesis testing was used. Various other statistical tests were carried out like correlations, and chi square tests. Data was presented in tables and figures. The tool used to analyze the data was Statistical Package for Social Scientists (SPSS).

3.7 Chapter Summary

In the chapter above the researcher discussed the research design and sampling technique to be used for the survey. Also defined was the data analysis methods and steps to be followed. In the following chapter, the researcher will present the data collected, its analysis and findings.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presented the results and findings of this research study and is organized into several sections. Under general information, the demographics show the distribution of the respondents along age, gender and marital status. The remaining part of the chapter details the results of each of the research questions. All statistical tests were done at a p.0.05 level of significance.

4.2 General Information

This section captured the general data on demographics. The data was represented in pie charts as shown below.

4.2.1 Gender Representation of Respondents

Figure 4.1 depicted that the percentage of respondents included 61% men and 39% women. This was a true representation of the IT industry where the number of women to men in the workforce.

Figure 4.1 Gender Analysis of Respondents
4.2.2 Age of Respondents

As seen in Figure 4.2 below majority of the respondents were aged between 20 – 30 years with this group accounting for 73% of the sample, followed by the 31 - 40 age group at 23%. This was also a true reflection of the IT industry where the majority of workers are young people . The older people working in IT, those over 40 years only accounted for 4% of the sample.

![Figure 4.2 Age analysis of IT respondents](image)

4.2.3 Marital Status

In Figure 4.3 below, interestingly the percentage of married and singles working in IT did not vary so much with 57% of IT professionals sampled being single and 43% married. Despite IT jobs being termed as depriving one of social time , from the charts it was evident that more and more people were able to strike a work and life balance.
4.3 I.T. Skills and Experience

To answer the first research question on the effect of skills and experience on IT turnover intentions two variables were used to measure the likelihood to turnover.

4.3.1 I.T Skills

In order to verify if IT skills had any influence on turnover intention we used the number of industry specific certifications an IT professional has to measure the skill level. Ideally the more certifications one had the better the skills. Two hypotheses were proposed as below.

H0: IT professionals with more certifications have a lower likelihood of Turnover. Moreover, IT professionals with more recent certifications have an even lower likelihood of turnover.

H1: IT professionals with more certifications have a higher likelihood of Turnover. Moreover, IT professionals with more recent certifications have an even higher likelihood of turnover.

From the findings in Table 4.1 below, it is clear that the more certifications a professional had the more likely they were to turnover. 82.5% of employees with 3 or
more certifications were likely to leave their current employers unlike the 33.3% with just one certification. The fewer the skills the more likely one was to stay.

**Table 4.1 Number of Certifications versus the Intention to Leave**

<table>
<thead>
<tr>
<th>No. Of. Certifications</th>
<th>Count</th>
<th>Are you planning to leave</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>One</td>
<td></td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33.3%</td>
<td>66.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Two</td>
<td></td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>85.7%</td>
<td>14.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38.7%</td>
<td>13.3%</td>
</tr>
<tr>
<td>3 and More</td>
<td></td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>82.4%</td>
<td>17.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45.2%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.4%</td>
<td>32.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 4.2 presented the Chi square results that measured significance of the variables, with \(X^2\) reported as \(2, N=46\) =11.788, \(p< 0.05\). The coefficient value of \(p=0.003\) asserted a very significant relationship between number of certifications and turnover intentions. This meant that the intention to leave increased with an increase in the number of certifications an employee got. More certifications meant IT workers had gathered more skills and therefore had the confidence to move out and look for other jobs. The null hypothesis \(H_0\) was rejected.

**Table 4.2 Chi Square Result for Number of Certifications**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.788*</td>
<td>2</td>
<td>.003</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.664</td>
<td>2</td>
<td>.003</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>8.168</td>
<td>1</td>
<td>.004</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In Table 4.3 below, the time value effect of IT certifications was analyzed. 89.3% of employees who had certified within the last 6 months planned to leave their current employers. This was in contrast with employees who had certified 3 years ago. Only 50% of them wanted to leave.

### Table 4.3 Recent Certification and Turnover Intention

<table>
<thead>
<tr>
<th>Recent Certification</th>
<th>Are you planning to leave</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 months ago</td>
<td></td>
<td>25</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>% within Recent Certification</td>
<td>89.3%</td>
<td>10.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Are you planning to leave</td>
<td>69.4%</td>
<td>30.0%</td>
<td>60.9%</td>
</tr>
<tr>
<td>6-12 months ago</td>
<td></td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>% within Recent Certification</td>
<td>87.5%</td>
<td>12.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Are you planning to leave</td>
<td>19.4%</td>
<td>10.0%</td>
<td>17.4%</td>
</tr>
<tr>
<td>1-3 years ago</td>
<td></td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within Recent Certification</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Are you planning to leave</td>
<td>5.6%</td>
<td>40.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Over 3 Years</td>
<td></td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>% within Recent Certification</td>
<td>50.0%</td>
<td>50.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Are you planning to leave</td>
<td>5.6%</td>
<td>20.0%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>36</td>
<td>10</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>% within Recent Certification</td>
<td>78.3%</td>
<td>21.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Are you planning to leave</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

It is also clear from Table 4.4 below that the employees with more recent certifications were more likely to turnover while those who had not certified in the recent past were least likely to turnover. A $X^2$ result of (3, N=46) =11.398, $p=0.01$ with significant alpha value $p<0.05$ confirms this. On this basis, the null hypothesis was rejected.

### Table 4.4 Chi-Square Tests Results for Recent Certification

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.398</td>
<td>3</td>
<td>.010</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.890</td>
<td>3</td>
<td>.020</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>8.133</td>
<td>1</td>
<td>.004</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td></td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>
4.3.2 Analysis of Experience and Turnover intention

The next hypotheses to be tested were on the influence of experience on turnover. In this study experience was measured by the number of years one had worked in the IT industry. The following hypothesis tested if turnover intentions and experience were related.

H0: The relationship between the levels of experience of IT professionals and the likelihood of turnover is not an inverted U-shaped curve.

H1: The relationship between the levels of experience of IT professionals and the likelihood of turnover is an inverted U-shaped curve.

Table 4.5 broke down the analysis of experience and turnover intent. Employees working experience was categorized into three groups; 0-5 years, 5-10 years and over 10 years. Those with the shortest time in IT (0-5 years) had the highest intention to leave, with 82.4% planning to turnover. This was in contrast to the employees who had worked over 5 years in IT, with only 17.6% planning to leave.

<table>
<thead>
<tr>
<th>Time worked in IT2</th>
<th>Are you planning to leave</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>0-5 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>over 10 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Referring to Table 4.6 we also found that there was a significant relationship between experience and likelihood of turnover with significance at (p=0.051). This showed that initially turnover would be expected as IT employees acquired more experience then it would begin to decline, as experience gathered increased to more than 5 years. The relationship was not an inverted U shaped curve so the null hypothesis was accepted. According to the results more employees were likely to leave within the first 5 years, after that the likelihood of leaving decreased, the longer one worked in IT.

**Table 4.6 IT Experience Chi Square Results**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.950*</td>
<td>2</td>
<td>.051</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.669</td>
<td>2</td>
<td>.059</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.246</td>
<td>1</td>
<td>.072</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significance level is 0.05
4.4 Demographic Variables

This section analyzed how demographic variables influenced turnover intentions of IT employees.

4.4.1 Analysis of Gender on Turnover

The first set of hypothesis was on gender to examine how it influenced turnover intentions.

H0: Turnover intention is not influenced by Gender

H1: Women are more likely to turnover than Men

Using cross tabulation to compare the percentage of men and women likely to leave the following was observed from the results in Table 4.7 below. 83.3% of the women sample indicated they wanted to leave their current employers against 67.9% of the men. This was indicative of the fact that women were more likely to turnover.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Are you planning to leave</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>% within Gender</td>
<td>67.9%</td>
<td>32.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>% within Gender</td>
<td>83.3%</td>
<td>16.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>12</td>
<td>46</td>
</tr>
<tr>
<td>% within Gender</td>
<td>73.9%</td>
<td>26.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

However the results of the chi square test in Table 4.8, which measured the significant relationship between variables showed the two variables gender and turnover were not significant, the significance level was greater than the alpha level $p<0.05$, with the $X^2$ $p=0.243 (1,N=46) =1.361$. This meant that the turnover intention was not entirely due to the gender and that other factors were at play. In this case, we accepted the null hypothesis.
Table 4.8 Gender Chi Square Results

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.361</td>
<td>1</td>
<td>.243</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction</td>
<td>.677</td>
<td>1</td>
<td>.411</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.420</td>
<td>1</td>
<td>.233</td>
<td></td>
<td>.315</td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>1.331</td>
<td>1</td>
<td>.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Analysis of Age and turnover

Under demographics, age as a factor influencing the turnover intentions of IT professionals was analyzed. The following hypothesis were proposed

H0: Age is not a predictor of Turnover intentions

H1: Younger employees are more likely to turnover than older ones

Age was a predictor of turnover intent. In Table 4.9, 78% of the employees within the 20-30 year age bracket indicated they were planning to leave their current jobs. This accounted for the youngest employees. The intention to leave was attributed to the fact that they were less committed and could risk job changes, compared to the older employees who showed reluctance to move. There was a trend, such that mobility decreased as age increased. This meant that most of the younger employees were more willing to turnover.

Table 4.9 Age and its Influence on Turnover Intent

<table>
<thead>
<tr>
<th>Age</th>
<th>Are you planning to leave</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>26</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>78.8%</td>
<td>21.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>20-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>Count</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>63.6%</td>
<td>36.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>41-50</td>
<td>Count</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>51-60</td>
<td>Count</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>33</td>
<td>13</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>71.7%</td>
<td>28.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
According to the results in Table 4.10 below, there was some marginal significance, with $X^2 p=0.100 \ (1, \ N=46) = 6.242$ also confirming that age can be a predictor of turnover. This finding augmented the results already presented above.

<table>
<thead>
<tr>
<th>Table 4.10 Chi-Square Tests on Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>

\textsuperscript{a} 5 cells (62.5\%) have expected count less than 5. The minimum expected count is .28.

### 4.4.3 Marital Status Analysis and Findings

Thirdly, the marital status of the employees was measured as a key predictor of turnover intentions. The following hypothesis were proposed and the results were as follows.

**H0:** Marital status is not a predictor of turnover intentions

**H1:** Marital status is a predictor of turnover intentions

The data in Table 4.11 below indicated that a married IT professional was more likely to turnover compared to a single one. Statistics indicate that 81.8\% of the married people were willing to turnover compared to 62.5\% who were single.

<table>
<thead>
<tr>
<th>Table 4.11 Marital Status and Turnover Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaritalStatus</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>MaritalStatus</td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Count</td>
</tr>
<tr>
<td>% within MaritalStatus</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Count</td>
</tr>
<tr>
<td>% within MaritalStatus</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Count</td>
</tr>
<tr>
<td>% within MaritalStatus</td>
</tr>
</tbody>
</table>

35
4.5 Organizational Factors

In this section, the influence of organizational factors on turnover intention of IT employees was investigated.

4.5.1 Public or Private Sector Dynamics

Two hypothesis were proposed to evaluate the influence of public or private sector IT jobs

H0: The sector does not influence turnover intention of IT employees
H1: IT professionals in private sector have a higher likelihood of turnover than those in the public sector.

However from the chi square results in Table 4.12 reporting a value of $X^2 p=0.146$ (1, N=46) =2.113 there was no significant relationship between marital status and turnover. Both married people and singles were equally likely to turnover. Based on the chi square results it can be concluded that marital status on its own does not influence the turnover intentions. The null hypothesis H0 was accepted.

Table 4.12 Marital Status Chi Square Results

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.113</td>
<td>1</td>
<td>.146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction</td>
<td>1.267</td>
<td>1</td>
<td>.260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.160</td>
<td>1</td>
<td>.142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td>.197</td>
<td>.130</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.067</td>
<td>1</td>
<td>.151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.22.

b. Computed only for a 2x2 table

Both cross tabulations and Chi square tests were performed to determine the relationship between the two variables. According to the results in Table 4.13 below, 94.9% of the workers surveyed in the private sector were planning to leave their current employers compared to 71% of the IT workers in public sector. This pointed to higher mobility in private sector IT departments or organizations.
Table 4.13 Public and Private Sector Organizations and Turnover Intention

<table>
<thead>
<tr>
<th>Public or Private Sector</th>
<th>Public Count</th>
<th>Yes</th>
<th>No</th>
<th>Total % within Public or Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>71.4%</td>
</tr>
<tr>
<td>Private</td>
<td>37</td>
<td>2</td>
<td>39</td>
<td>94.9%</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>4</td>
<td>46</td>
<td>91.3%</td>
</tr>
</tbody>
</table>

The chi square results in Table 4.14 below also echoed the same findings, that there was a significant relationship between turnover intention and the sector in which the IT employees work, \(X^2 = 4.108\) (1, \(N=46\)). The significance level was at \(p<0.05\) hence Sector did influence IT turnover directly. Employees in the private sector were more likely to leave their jobs than those in the public sector. The null hypothesis was rejected and H1 accepted.

Table 4.14 Public and Private Sector Chi Square Results

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.108</td>
<td>1</td>
<td>.043</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction(^b)</td>
<td>1.686</td>
<td>1</td>
<td>.194</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.027</td>
<td>1</td>
<td>.082</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td>.104</td>
<td>.104</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.019</td>
<td>1</td>
<td>.045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5.2 Industry Analysis

Other than the two main sectors, an analysis of industry was also done to find out if it influenced turnover intentions. The hypotheses were

H0: Industry did not influence turnover intention of IT employees
H1: IT professionals in non-IT industries had a higher likelihood of turnover than those in IT industries.

A classification of the major industries was used to analyze and find out if some industry types were more predisposed to turnover than others are. From the results summarized in Table 4.15, it was interesting to note that some of the Non-IT industries like banking and government reported a 100% turnover intention. Others like medical, IT and Telecommunications had lower percentages.

Table 4.15 The Industry Effect on Turnover Intention

<table>
<thead>
<tr>
<th>Industry</th>
<th>Are you planning to leave</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Telecommunication</td>
<td>19</td>
<td>1</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>% within Industry</td>
<td>95.0%</td>
<td>5.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>IT Firm</td>
<td>17</td>
<td>1</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>% within Industry</td>
<td>94.4%</td>
<td>5.6%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Banking and Financial</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>services</td>
<td>% within Industry</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Medical</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>% within Industry</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>% within Industry</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>% within Industry</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>4</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>% within Industry</td>
<td>91.3%</td>
<td>8.7%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

The chi square results summarized in Table 4.16 indicated there was a very significant relationship between the industry type and turnover intention, \( X^2 (5, N=46) = 13.742, P=0.017 \). The significance level was at \( p<0.05 \), which confirmed that different industry types affected the turnover intentions of IT professionals. Mobility was likely to be higher for employees in Banking, Government and Education than in
Telecommunication firms and in Pure IT firms. Just like before the null hypothesis was rejected and the H1 accepted.

**Table 4.16 Industry Chi Square Results**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>13.742*a</td>
<td>5</td>
<td>.017</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7.697</td>
<td>5</td>
<td>.174</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.315</td>
<td>1</td>
<td>.128</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**4.6 Chapter Summary**

In this chapter, the data collection and statistical analysis methods used in the survey were discussed. The results were presented in pie graphs and tables and a brief interpretation of the results follows each of the research questions.

The statistical tests used were descriptive statistics namely crosstabs, chi square tests and frequencies to identify relationships between the variables and turnover intention. All tests were carried out at p=0.05 significance level.

In the following and final chapter, the findings and conclusions as well as recommendations of the research study were presented.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the discussion, conclusions and recommendations of the research study. The chapter is in four main sections.

In the summary section, the purpose, research questions and major findings were presented. The discussion section went deeper into the result findings and how they compared with previous research done on this subject, it was anchored on the three research questions. The conclusion highlighted the new findings and the recommendations part discussed suggestions on the way forward.

5.2 Summary

The purpose of the study was to examine the factors that influenced the turnover intentions of IT employees in Kenya. The study sought to investigate three main questions; firstly how the skill levels and experience of IT employees affected turnover intentions the IT industry, secondly was how demographic variables influenced turnover intentions of IT employees and thirdly how the type of organization influenced the turnover intention of IT employees.

On the research methodology, the survey used the probability sampling method with a sample size of 62 respondents. A web-based questionnaire was used to collect the data. Email requests were sent to these IT professionals and of the sent requests; responses from 46 respondents were received. The response rate was 76%. Reminder emails and follow up phone calls were used to improve the response rates. The data was then cleaned and analyzed using SPSS software. The statistical tests performed on the data included descriptive statistics, frequencies and chi square tests. The researcher represented the data in tables and graphs.

The major findings of the study were based on the research questions.
On the influence of skills and experience on turnover intentions, two variables were used to measure the turnover intention namely skills quantified by professional certifications and experience quantified by number of years working in IT.

For skills, it was found that the number of certifications an employee had did influence turnover but did not significantly increase the intention. Employees with one certification and those with more than three all indicated their intention to move jobs. However, the validity of the certification, measured by how recently an employee had certified, seemed to increase turnover intentions significantly.

It was found that there was a significant relationship between experience and likelihood of turnover. This showed that initially turnover would be expected as IT employees acquired more experience then it would begin to decline, as experience increased. According to the results more employees were likely to leave within the first 5 years, after that the likelihood of leaving decreased, the longer one worked in IT.

For the second question, whether demographic variables influenced turnover intentions of IT employees. Three key variables analyzed for significant relationships were age, gender and marital status. Age influenced the turnover intention of IT employees with younger employees more likely to turnover compared to the older ones. In the first group of employees aged 20 – 30, 78.8% of the employees showed intention to leave. In the second group of employees, aged 31 – 40, 63.3% of the employees showed intention to leave. In the final group of employees aged 41 and above 0% of the employees showed intention to leave.

Gender also did not significantly appear to influence turnover intentions. In this case, the null hypothesis was accepted. However from the crosstab count results, 83.3% of the women polled indicated they wanted to leave their current employers against 67.9% of the men. This was marginally indicative of the fact that women were more likely to turnover.

The third variable marital status, did not significantly affect turnover intentions. Two groups of IT professionals were analyzed, married and single people. It was found that
employees whether married or single were likely to turnover in equal proportions. One group did not have a higher intent compared to the other.

Thirdly, apart from the individual factors, the study sought to find how external factors influenced turnover. The question here was how the type of organization influenced the turnover intention of IT employees. A global view of public versus private sector was analyzed and then drilled down to specific industries. In the first instance, we found that employees in both the public and private sector had a high intention of turnover. The private sector scored higher but this was attributed to the fact that over 84% of the respondents in the survey worked in the private sector. This may have skewed the results.

Also in the analysis by industry segmentation, there was a very significant relationship between the industry type and turnover intention. From the results, IT employees working in financial services and government were most likely to turnover as compared to the workers in other industries. Mobility was likely to be higher for employees in Banking, Government and Education than in Telecommunication firms and in Pure IT firms.

5.3 Discussion

In summary, it was found that both individual and organizational factors influence turnover intentions. The details of these were presented as follows.

5.3.1 Skills and Experience

A comparison of the results of the survey and previous research offers some interesting insights. It was found that the two variables used to measure the turnover intention namely skills quantified by professional certifications and experience quantified by number of years working in IT differed and agreed in some of the instances.

For skills, the number of certifications an employee had influenced turnover. Employees with one certification and those with more than three all indicated their intention to move jobs. The validity of the certification, which was measured by how recently an employee had certified, seemed to increase turnover intentions significantly.
The results are similar to those reported by earlier studies where the more skills one had as measured by certifications increased the general IT human capital. According to human capital theory, General IT human capital increased an individual’s productivity and value across all organizations. This, in turn, translated into more job alternatives, and subsequently a higher probability of turnover (Trevor, 2001).

In addition, the fact that employees with more recent certifications were more likely to turnover was supported by previous studies. Quan and Cha (2010) stated that more recently acquired certifications had a higher human capital value, and hence an elevated influence on IT professionals’ turnover intention.

Interesting to note was that experience played a major role in the prediction of turnover intentions. The more experience an employee gathered on the job, the more likely he or she was likely to turnover. The results are similar to previous literature in that in the initial stages as experience increases it positively affects turnover. Treating IT experience as another form of human capital, Joseph et al. (2006) found an inverted U-shaped curvilinear relationship between IT experience and turnover intention. That is, the probability of turnover increased initially with the total number of years of IT experience, then started to decrease once IT experience reached a certain level. In the results, employees with 0-5 years experience were most likely to leave, but beyond five years the intention to turnover decreased.

The reason for this according to Joseph et al. (2006) was that in the early years as the IT employee accumulated a stock of IT experience, mainly standard IT knowledge like coding, analysis, networking it afforded more job alternatives and hence the increased turnover ratio. However, turnover begun to diminish once the IT experience was at a certain level at which companies were willing to provide enough incentives to retain the high value professionals. At the later stage of the IT career, the IT experience was more firm specific like using IT for business decision making and this discouraged turnover.

5.3.2 Demographics and IT Turnover

Three aspects of demographics were analyzed to find out if any relationships existed between them and turnover intentions.
The first variable was gender. A null hypothesis was proposed as Gender did not influence turnover intention and an alternative one that stated Gender did influence turnover intentions. From the results of the survey it was found that despite the sample having fewer women than men, the majority of the women expressed a desire to turnover from their current jobs. 83.3% of the women were willing to turnover against 67.9% of the men. We can confidently say that women were more likely to turnover than men were. However when analyzed, the results of the chi square test at one degree of freedom p=0.243 indicate that there was no significant relationship between gender and turnover, meaning gender did not influence turnover intentions.

The findings were consistent with previous literary works. IT scholars had generally argued that female IT professionals experienced greater desire to move because of restricted opportunities in promotions (Baroudi & Igbaria, 1995; Igbaria & Chidambaram, 1997).

Interestingly the findings also conflicted with another study done by (Ahuja, 2002) which showed that female IT professionals were also likely to perceive less ease of movement because of the fewer opportunities or resources to develop their skills and careers, as well as the general stereotype of IT as a male dominated profession. These arguments are consistent with the extant gender research showing that women tend to hit a glass ceiling because of greater structural barriers and fewer work opportunities (Gutek, 1993), resulting in less job satisfaction and loyalty to their organizations (Stroh & Reilly, 1997).

In contrast, Joseph et al. (2007) also found that male IT professionals appeared more inclined to leave the organization, in part due to lower job satisfaction, compared to their female counterparts. The differing views mean more research needs to be carried out to find out what the underlying factors that influence turnover of women or men.

Yu (2008) found that work life balance policies are positively associated with the job tenure of the female employees, and the practices of such policies have a great effect on the turnover rate of employees. Work-life balance policies help in reducing the stress, provide a good work place where, there is less chance of accidents in the working, and
provide a fair platform for every employee, ultimately enhancing productivity (Yasbek, 2004).

The second variable was age. A null hypothesis was proposed, that age does not influence turnover intention and an alternative one that stated age does influence turnover intentions. From the results of the survey, it was found that age influenced the turnover intention of IT employees with younger employees more likely to turnover compared to the older ones. In the first group of employees aged 20 – 30, 78.8% of the employees showed intention to leave. In the second group of employees, aged 31 – 40, 63.3% of the employees showed intention to leave. In the final group of employees aged 41 and above 0% of the employees showed intention to leave.

This supported previous studies done where age predicted intention to turnover. Joseph et al. (2007) in his study of IT turnover found that older IT professionals were less likely to quit even though they were less satisfied with the job, in part due to reduced job alternatives. In addition, individuals experienced more constraints in leaving the organization as family responsibilities for example care for children or parents increased with age, thus reducing ease of movement Finegold et al. (2002). Joseph et al. (2007) found that for ease of movement, age should have a negative relationship.

The findings of this research differed slightly with those of a study done on how age affects turnover intentions (Quan & Cha, 2010). Quan and Cha (2010) compared IT professionals at different stages of their career dividing them into three groups: younger (less than 29 years old), middle-aged (30-45 years old) and older (45 years old, the base group). The reason for doing this was based on the belief that IT professionals at different career stages may have different turnover patterns. Quan and Cha (2010) found that the middle-aged professionals were the most mobile group, which seemingly contradicted the common belief that the younger an employee was the more willing and able they were to change jobs. Younger employees at the beginning of their careers focused on gaining experience and developing marketable job skills in their current jobs so they were less likely to move. As middle-aged IT professionals became more experienced and skilled, the job market became much more favorable for them. In addition, their turnover intentions increased and, finally, job stability and security gradually become the primary concerns of older IT professionals and moving becomes
less desirable for them. This interaction of career development and turnover is the three-phase career life cycle of IT professionals. In this study younger employees were more likely to turnover while middle aged and older age groups did not show a lot of desire to turnover.

The third variable to be analyzed was marital status. A null hypothesis that marital status does not influence turnover intention and an alternative one that stated marital status does influence turnover intentions was proposed. From the results of the survey, it was found that marital status did not significantly influence turnover intentions. Both singles and married IT professionals were equally likely to turnover. This meant other influencing conditions have to be analyzed.

Though this area has not been given much interest in research, comparison of the findings to previous works of literature was done. The findings were in contrast to a study by Doran et al.(1991) that found marital status is negatively related to IT Turnover intention because married employees were likely to have greater financial burdens and need to consider their spouses’ employment, compared to their single counterparts. These additional considerations were likely to result in less desire to move and lower ease of movement.

Another study by Abelson (1987) assessed demographic variables. He found that people who were married, had more tenure and those that had children requiring care were more likely to stay than to leave.

5.3.3 Organizational Factors

Under the final research question, the survey examined the sector and industry in which an IT professional worked as a determinant of turnover intentions.

In the first instance, we found that employees in both the public and private sector had a high intention of turnover. The private sector scored higher but this was attributed to the fact that over 84% of the respondents in the survey work in the private sector. This may have skewed the results. Also in the analysis by industry segmentation, there was a very significant relationship between the industry type and turnover intention. From the results, IT employees working in financial services and government were most likely to
turnover as compared to the workers in other industries. Mobility was likely to be higher for employees in Banking, Government and Education than in Telecommunication firms and in Pure IT firms.

Differences in the type of organization whether private or public or IT or NON –IT would have an effect on the turnover intentions because of varying job and work place characteristics. These characteristics would affect organizational commitment and in turn affect turnover intentions. The findings concurred with previous studies that showed there was evidence that job satisfaction rates differed amongst members of private sector organizations compared to those in the public sector (Joshi, 1998) and there were differences in various workplace attitudes and behaviors (Markovits, Davis, & van Dick, 2007). In particular, public sector employment tended to offer lower levels of pay but higher levels of job security, pensions, and flexibility (Booth & Frank, 2005). These differences could have an impact on how the relationships between job satisfaction, organizational identification, and turnover intention, such that satisfaction may have played a larger role in turnover intention in private sector organizations. Previous research also found that supplementary person-organization fit was a significant predictor of turnover (Kristof-Brown, 2005). IT professionals in a non-IT firm felt less supplementary person-organization fit than they would in IT firms.

Igbaria et al. (1994) and Joseph et al. (2007) have suggested that role ambiguity and role conflicts within the firm were two major contributors to turnover intention. This was depicted by the high turnover intention of 100% in non-IT industries of financial services and government compared to 96% in the IT firms.

5.4 Conclusions

This research does extend the current research on turnover intentions by providing a comparative analysis of the situation in Kenya versus the existing literature mostly from the western world.

5.4.1 Skills and Experience

From the findings, it is possible to conclude that the skills and experience of IT professionals would be able to predict turnover intentions. This has strong managerial
implications. It is worrying that 82.5% of employees with the most certifications are planning to leave. These are highly skilled employees who should be offered incentives to stay within the organization and to prevent the firm from being a training ground for other firms.

It can be concluded that firms should offer opportunities for staff to improve their skills and at the same time provide incentives to retain their talent pool. HR departments should continuously organize for training for their IT staff. Once employees are certified they can be awarded a raise. The same is true for those experienced professionals; HR policies should be such that these employees get incentives so that they are retained. This would reduce costs spent on recruitment and learning time on a new job. Employees should also consider the time value of certifications and invest in updating their skills every now and then. This will make them more marketable.

5.4.2 Demographics and IT Turnover

It can be concluded that to some extent demographics did influence turnover intentions. Management can use the findings to see where they need to come up with strategies to retain their employees. In terms of age 78% of the young employees were planning to leave. This, mobility can be detrimental to a firm, as these young people make up most of the work force. In the case of married employees and gender, the firms should provide incentives to ensure their workers are comfortable and can maintain a good work life balance.

5.4.3 Organizational Factors

The type of organization and the industry influenced the turnover intentions of the IT employees. Non-IT firms were more likely to lose IT personnel; the reason could be that IT employees felt more challenged in a Pure IT environment. It was possible to conclude that these organizations needed to understand and treat their employees differently to retain them. In addition, IT employees in the private sector seemed to be more likely to turnover. This was due to the high pressures and demands of private sector jobs that created a work environment that was not so conducive. Stronger retention policies were needed to keep these employees on board.
5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Skills and Experience

Based on the findings, firms should offer opportunities for staff to improve their skills and at the same time provide incentives to retain the talent pool. They can continuously organize for training. The same is true for those experienced professionals; HR policies should be such that these employees get monetary rewards so that they are retained. This would reduce costs spent on recruitment and learning time on a new job.

5.5.1.2 Demographics and IT Turnover

Age, gender and marital status are the key demographics used to predict IT turnover. Younger employees were more likely to leave their current employers compared to older ones with 78% of the younger employees showing higher turnover intent. Organizations should provide a suitable environment where the new employees feel they fit, belong, and can plan to be with the firm longer. In addition, the remuneration and soft benefits should be addressed, as these were the main reasons for moving.

As far as gender and marital status were concerned, women were more likely to leave their current IT jobs. The married IT professionals were also more likely to turnover. This can be attributed to a work life balance conflict. Managers are therefore tasked to come up with policies and incentives that provide an enabling environment for their workers. Some of these incentives could be flexible hours, telecommuting for the mothers and married staff. Transfer from more demanding roles like round the clock support to less demanding ones

5.5.1.3 Organizational Factors

Organizational factors also determined turnover intentions. To improve employee retention managers in the Non-IT firms and Non-IT industries where turnover was likely to be higher need to come up with strategies of retaining their employees. They should clearly define their roles and remunerate them accordingly. They should invest in programs to reward their IT employees so that they have loyalty over time.
5.5.2 Recommendations for Further Studies

It was recommended that the researchers conduct a longitudinal research and watch the trends over time. Future research can be improved by classifying the skills according to certifications in the different IT roles so that we can contrast between different specializations of IT employees like developers, analysts, support, database administrators, network administrators, web designers and so forth. This would paint a clear picture of whether some certain IT roles are more prone to turnover intention as compared to others.

Another recommendation for further research would be to find out where the IT employees would move to if they acted on their turnover intentions. Is it to begin their own companies, work in different industries or still within the IT industry or abandon IT completely?

Another area of interest though not captured in this research paper is the effect of outsourcing of IT jobs to cheaper labour markets like China and India and how this is affecting turnover intention in Kenya. This is a rising trend and cannot be ignored as it will affect the IT labour market in Kenya.

In addition, the size of the organization should be determined in further research. It would be interesting to see how the turnover intentions of IT employees are influenced by working for a small company versus working for the big co-operations.
REFERENCES


Hsu, M.K, Chen, H. G., Jiang, J. J., & Klein G (2003). Career satisfaction for managerial and technical anchored IS personnel in later career stages,


APPENDICES

APPENDIX 1 COVER LETTER

This study is a requirement for the partial fulfillment of the Master of Business Administration in Information Systems Management at the United States International University Africa (USIU-A). The purpose of this study is to explore the factors influencing turnover intentions of IT employees.

This study will involve IT employees in Kenya; and the findings of this study will provide management with insights on how to better treat and retain their talent. This is an academic exercise and all information collected from respondents will be treated with strict confidentiality.
APPENDIX 2: QUESTIONNAIRE

SECTION 1: GENERAL INFORMATION

Please tick appropriately

1. Gender
   □ Male □ Female

2. Age
   □ 20-30 □ 31-40 □ 41-50 □ 51-60

3. Marital status
   □ Single □ Married □ Divorced □ Widowed

4. Do you have children? □ Yes □ No

SECTION 2: SKILL LEVELS AND EXPERIENCE OF IT EMPLOYEES

Please tick the following appropriately

1. What is your highest level of education?
   □ Primary school □ Secondary School □ Diploma
   □ Bachelors degree □ Masters □ PHD

2. How many Certifications do you have? □ One □ Two □ More than two

3. How recently did you certify or go for training? □ 3 months ago □ 6 months ago □ 1 year ago □ Over a year ago

4. Did the company pay for all training costs? □ Yes □ No

5. Did you get a raise after certifying? □ Yes □ No

6. How long have you been employed? (Please indicate in years)
   □ Never □ Once □ Twice □ Thrice □ Over three times

7. In this time, how many times have you changed jobs?
   □ Never □ Once □ Twice □ Thrice □ Over three times

8. What was the reason for moving? ________________________________

9. What do you think is the longest time to work in one organization?
   □ 1 year □ 2 years □ 3 years □ 5 years □ N/a

10. Do you feel that you are paid enough for the work done? □ Yes □ No
SECTION 3: TYPE OF ORGANIZATION

1. Place of work?
   - [ ] Public sector  [ ] Private Sector

2. What industry do you work in?
   - [ ] Telecom  [ ] Pure IT  [ ] Banking and Financial Services
   - [ ] Medical  [ ] Education  [ ] Government  [ ] If Other, Please specify__________

3. Position held in your company?
   - [ ] Manager  [ ] Technical

4. What best describes what work you do?
   - [ ] System development  [ ] Network  [ ] System administrator
   - [ ] Support,  [ ] Operations  Other, please specify__________

5. Are you likely to leave this job if you got an opportunity?  [ ] Yes  [ ] No

6. If yes above ,please explain

7. How long have you been at your current job?
   - [ ] Less than 6 months  [ ] One year  [ ] 2-3 years  [ ] Over 5 years

8. What are the typical working hours?  [ ] Fixed  [ ] Flexible

9. How often do you work on weekends?  [ ] Yes  [ ] No

10. Do you work at night?  [ ] Yes  [ ] No

11. Are you paid for overtime work hours?  [ ] Yes  [ ] No

12. How easy is it to apply for leave at you workplace?  [ ] Not easy  [ ] Easy

13. Does the company rely on you for everything?  [ ] Yes  [ ] No

14. Do you get time to pursue personal interests?  [ ] Yes  [ ] No

15. Does the company offer training?  [ ] Yes  [ ] No

16. How would you rate the level of your job stress?
   - [ ] Mild  [ ] Moderate  [ ] Severe  [ ] Extreme
SECTION 4: JOB SATISFACTION

Please indicate how SATISFIED you are with each of the following factors in your current job (Use the key as follows Not satisfied=NS, Neutral=N, Somewhat satisfied=SS, Satisfied=S, Very satisfied=VS)

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<tr>
<th>Factor</th>
<th>NS</th>
<th>N</th>
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<tbody>
<tr>
<td>1. There is little or no travel</td>
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<td>2. You are treated with respect</td>
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<td>3. There is not a lot of overtime</td>
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<td>4. Do you have Supportive management?</td>
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<td>5. Provided with full health benefits</td>
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<td>6. Raise in salary after training is completed</td>
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<td>7. You are provided with full reimbursement for training expenses</td>
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<td>8. There is a cordial dress code</td>
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<td>9. There are opportunities for advancement</td>
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<td>10. You are provided with free parking</td>
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<td>11. There is a formal training program</td>
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<td>12. You are reimbursed for moving expenses</td>
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