2016

Retention of Information Technology Employees

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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2016

Abstract

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MA, Webster University, 2002

BA, Columbia College, 1998

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

December 2016

Abstract

Business leaders often realize greater profitability when they have strategies to retain IT employees. However, the cost to replace IT employees creates significant challenges for business leaders. Given the growing impact of technology on operational costs, retention of IT employees is imperative. This exploratory single case study sought to identify the strategies that leaders use to increase IT employee retention. The population was 6 leaders from a military organization in Norfolk, Virginia, responsible for the retention of IT employees. Herzberg's two-factor theory was the conceptual framework for this study. The data was collected from semi-structured interviews with 6 leaders along with organization documents. Data analysis and methodological triangulation included thematic analysis to identify 7 themes in the study. These 7 themes were quality of life, telework, leadership, inclusion, and staying abreast of new technology. Implications for social change include the potential for leaders to save money on recruitment and training. It also includes organizations becoming profitable through better employee retention strategies, and it adds to the body of knowledge that leaders could use to provide stable employment opportunities to individuals. The retention rates among IT employees affect individuals, families, communities, organizations, and the economy. Implementing retention strategies may result in improving employee-employer relationships and organizational profitability.

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Dedication

First, I dedicate this dissertation to my parents, Hazel Gray and William Dixon. My parents have been my biggest supporters and my role models. Mom and Dad, I am forever indebted to you for the love and support and the sacrifices that you have made. To my brothers, sisters, step-mom, son and daughter-in-law thank you for your unconditional love, finally, to my son and daughters, Christopher, Teresa, and Stephanie, I love you unconditionally and want you to reach for the stars. I encourage you to dream big. My journey to achieve this destiny of the highest level of education started with faith.

Second, I dedicate my dissertation to my grandchildren in the hope that they create or contribute to a work environment that respects the potential of all human beings regardless of their gender, cultural, or religious belief. It is my hope that Sofia, Gabriella, Eva and Chris Jr., have the courage and focus to break through any barrier in the way of them achieving their personal and career goals.

Acknowledgments

I would like to thank God for giving me the strength and resources to complete this doctoral study. I would like to offer a special thanks to Wanda Hunter and Carolyn Williams, numerous family members, and friends for their continued support and sacrifice during this journey. Words cannot express my gratitude for your love, encouragement, and support. I want to thank my research committee chair, Dr. Scott Burrus. Dr. Burrus, your ability to lead by example got me through this program. Thank you to my second chair member, Dr. Richard Johnson, and to my URR, Dr. Janet Booker, for helping me to achieve the highest level of academia.

Special thank you to my friends Dr. Marie Bakari and Dr. Laura Jones, for helping me get to the finish line. I would like to thank Dennis Bevington and the MARMC participants for the important roles they played in helping me to successfully complete this program of study. Special thanks to my family, friends, and coworkers for your encouraging words and prayers. Lastly, to Dr. Freda Turner, and Fred Walker thanks for working with me until the end, both of you make Walden University a great institution of higher learning.

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Section 1: Foundation of the Study

Leaders of information technology lack strategies to improve employee retention. From the 1970s into the 1990s, information technology (IT) employee turnover ranged from 15% to 33% in the United States; these statistics were the basis of concerns among practitioners and scholars (Lo, 2015). The impact of turnover of IT employees remains a chronic problem for organizations' managers and leaders (Gittell & Douglas, 2012; Moquin & Riemenschneider, 2014). This qualitative exploratory single case study contributes an understanding of retention strategies that may improve organizational profitability through implementation of best practices.

Background of the Problem

Given the growing impact of technology on organizational financial and operational success, retention of the IT employee is imperative (Wang & Kaarst-Brown, 2014). Tnay, Othman, Siong, and Lim (2013) stated when IT employees leave their jobs, they take with them system knowledge and specialized work skills that are difficult to replace. Teaching newly hired workers to be as proficient as those who have left their jobs is an expensive and time-consuming process (Ghapanchi, Ghapanchi, Talaei-Khoei, & Abedin, 2013). Mbah and Ikemefuna (2012) stated that organizations spend approximately 50% of an employee's annual salary per new hire. When leaders have a clear understanding of employee retention strategies they can meet the goal of maximizing profitability. The goal of this qualitative exploratory single case study was to explore strategies that business leaders can use to increase IT employee retention.

Problem Statement

Organizational leaders often realize greater profitability when they have strategies to retain IT employees (Lo, 2015). The cost to replace an IT employee ranges from 50% to 150% of that person's annual salary (Hester, 2013). The general business problem was the inability of leaders to enhance employee retention rates in a way that has lasting effects on organizational profitability. The specific business problem is that some leaders lack the strategies to increase IT employee retention.

Purpose Statement

The purpose of this qualitative, exploratory single case study was to investigate strategies that leaders use to increase IT employee retention. The target population consisted of six leaders from a military organization responsible for the retention of IT employees. I conducted interviews with leaders located in Norfolk, Virginia. This study contributes to positive social change by providing leaders with a better understanding of IT employee retention strategies and possible strategies to retain these employees in the IT field. The business benefit may result in retention strategies that organizational leaders use to realize increased profits.

Nature of the Study

I considered all the research methodologies for this study including quantitative, qualitative, and mixed methods. Yin (2012) explained that researchers typically select research methodologies based on the research questions. Drawing on the understanding of the participants' beliefs, values and perceptions, I chose a qualitative approach rather than quantitative or mixed method. A quantitative research method was inappropriate for this study because this form of examination involves deductive testing, empirical measurement, and statistical analysis of a prehypothesized relationship that may exist between identified variables (Lach, 2014). Similarly, according to Wahyuni (2012) the mixed method is a combination of numerical and textual data. The mixed method was inappropriate because the study does not involve aspects of both qualitative and quantitative studies. The qualitative approach was appropriate for research questions requiring textual data (Wahyuni, 2012). Researchers use the qualitative research method to conduct data analyses of responses to open-ended questions, and to create meaning about a phenomenon derived from participants' vantage points (Venkatesh, Brown, & Bala, 2013). The qualitative approach was appropriate for this study because I focused on the perceptions of the participants to discover strategies that help organizational leaders increase the retention of IT employees. Additionally, the qualitative approach was appropriate for building a holistic understanding of complex processes and realities that have no precise measurements or predetermined hypotheses (Codie, 2012). Section 2 contains the methodology and specific process for this study.

A case study design suits the objective of the study. The selection of a research design depends on the nature of the research question, target population, data collection method, and analysis techniques (Wester, Borders, Boul, & Horton, 2013). The reviews of available research designs for qualitative methods were (a) phenomenology, (b) grounded theory, (c) ethnography, and (d) narrative research designs (Cruz & Higginbottom, 2013; Moustakas, 1994; Turner, Balmer, & Coverdale, 2013). A case study was useful for promoting understanding of the concerns of participants (Boblin, Ireland, Kirkpatrick, & Robertson, 2013). An exploratory single case study design was appropriate for the research study to obtain a deep understanding from a small number of participants.

Research Question

The research question for this qualitative study was: What strategies do leaders use to increase IT employee retention in Norfolk, Virginia?

Interview Questions

1. What employee motivational factors do you use to retain IT employees in your company?
2. What strategies have you used to retain employees in the IT field?
3. Which of these strategies have you implemented to retain employees in the company?
4. Which of these strategies help to improve retention?
5. Which of these strategies did not help to improve retention?
6. Why did these strategies not improve employee retention?
7. What else would you like to add that might be applicable and that we did not cover?

Conceptual Framework

The conceptual framework for this study was the two-factor theory that Herzberg (1959) developed. Ghapanchi, Ghapanchi, Talaei-Khoei, and Abedin (2013), Nanjamari (2013), and Worlu and Chidozie (2012) extended the works of Herzberg. The key premise of the theory was intrinsic (hygiene) factors influence employee job dissatisfaction and extrinsic (motivational) factors influence employee job satisfaction. Key constructs underlying the theory were (a) employee intention to stay, (b) employee job dissatisfaction, (c) employee job satisfaction, (d) employee retention, (e) employee turnover, (f) extrinsic (motivating) factors, (g) information technology employees, and (h) intrinsic (hygiene) factors. As applied to this study, Herzberg's (1959) two-factor theory was the appropriate framework to effectively explore and reveal organizational leaders' perceptions and experiences to increase IT employee retention, which affects the profitability of the organization.

Operational Definitions

The following terms were used in this study.

Employee intention to stay: An individual's perceived probability of remaining with an organization (Aguinis, Gottfredson & Joo, 2013)

Employee job dissatisfaction: An individual's negative state of mind about the individual's work experience (Tong, Tak, & Wong, 2015).

Employee job satisfaction: An individual's positive state of mind about the individual's work experience (Sukriket, 2015).

Employee retention: The ability of an organization to retain its employees (Tornack, Pilarski, & Schumann, 2015).

Employee turnover: The voluntary or involuntary movement of employees in and out of an organization (Choi, Musibau, Khalil, & Ebi, 2012).

Extrinsic factors: External hygiene factors that include a sense of personal achievement, status, recognition, challenging and stimulating work, responsibility, and opportunity for advancement, promotion and growth (Herzberg, 1968; Ismail, & El Nakkache, 2014).

Information technology employees: Employees in occupations that include database administrators, information security, network manager, and IT project manager, web programmers, computer support specialists, network administration, and program and system analysts (Leidner, Moquin, & Riemenschneider, 2013).

Intrinsic factors: Internal motivational factors that include salaries, wages and other benefits, company policies and administration, positive interpersonal relationships, quality of supervision, job security, working conditions, and work-life balance (Herzberg, 1968; Dhanapal, Alwie, Subramaniam, & Vashu, 2013).

Assumptions, Limitations, and Delimitations

There are assumptions, limitations, and delimitations in this study. Assumptions are the facts in a study that may not be validated. Assumptions, especially core assumptions, often constitute the foundation of the mechanistic explanations framed by a given theory (Denyer & Tranfield, 2015). Limitations are the potential gaps or weakness in a study (Marshall & Rossman, 2016). Burchett, Mayhew, Lavis, and Dobrow (2013), Pezalla, Pettigrew and Miller-Day (2012) explained that limitations are potential shortcomings of the study that are typically out of the researcher's control. Delimitations are characteristics that limit the scope of a study or define its boundaries (Simons, 2014). Given the assumptions, limitations, and delimitations, the results of the study may not prove transferrable. I discuss the three categories below.

Assumptions

Five identifiable assumptions existed for this study regarding the leaders who participated. The first assumption was that all IT leaders would respond honestly to the interview questions. The second assumption was that retention of employees continues to be important in organizations. The third assumption was that the interview questions and information are relevant when addressing the research problem. The fourth assumption was that the data collection method and analysis techniques would result in valid and reliable data. The final assumption was that the time allowed by Walden University research committee for the completion of the study was adequate.

Limitations

Five identifiable limitations existed for this study regarding the leaders' who participated. The first limitation was that the nature of qualitative research, with the researcher as the primary data collection instrument and data analyst, could create biases. The second limitation was that the sample included approximately six leaders. According to O'Reilly and Parker (2013), selecting six participants was adequate for a qualitative case study inquiry, but a concern with transferability may exist. The exploring, describing and analyzing retention opinions of approximately six leaders was an acceptable research effort, but findings from these leaders might not be transferrable to another business. The third limitation was that the study excluded perspectives of IT leaders in other institutions, including regulatory authorities, which constitutes a further problem for transferability of the study. The fourth limitation was that a qualitative inquiry, by definition, is not transferable to other settings. A final limitation was that the interview data included vague responses due to the interviewees' personal biases, anxiety, or stress during the interviews (Knight, 2012).

Delimitations

Three identifiable delimitations existed for this study regarding the leaders who participated. The first delimitation was that the leaders in the study were from the Southeastern United States. The second delimitation was interviewing leaders who supervise IT employees, defined as database administrators, web programmers, computer support specialists, network administrators, and system analysts. All participants in the study were volunteers who could withdraw from the study at any time. Lastly, one of the delimitations in the study was only leaders' who occupy or are retired from positions within the past 5 years could participate in the study.

Significance of the Study

This qualitative exploratory single case study may contribute to business practice by exploring strategies of interest to leaders and IT employees. Studies of IT employee retention strategies included research in strategy and human resource management (Smith & Shields, 2013). A critical issue for leaders is increasing IT employee retention rate. Learning what constituted employee job satisfaction adds to the totality of importance generated by this qualitative inquiry (Smith & Shields, 2013). This study was designed to help businesses aiming to maximize profitability through best employee retention strategies and practices.

Contribution to Business Practice

Business leaders may use the findings to improve their understanding of the role of employee retention strategies as a driver of profitability. Leaders could also use the findings to identify appropriate IT employee recruitment, training, compensation, and motivating practices (Javed & Javed, 2013). The findings may also help leaders compare and contrast the cost implications and advantages of make or buy IT related decisions (Smith & Shields, 2013; Tnay et al., 2013). The results may help leaders to create innovative retention strategies and enact positive organizational changes to reduce employee turnover. Leaders could also use the findings to establish ongoing and continuing training to update their employee skills and expertise (Tuwei, Matelong, Boit, & Tallam, 2013). Researchers may also use this study as a basis for further exploration of alternative ways of increasing the retention rate of employees in other key functional areas (Nanjamari, 2013). Publishing the results of this study could inform business leaders about strategies to improve employee retention and organizational profitability.

Implications for Social Change

This study may contribute to social change by adding knowledge about the overall study of employee retention, which could also help improve retention rates in different industries. The results of the study may help business leaders develop strategies to reduce turnover rates among IT employees. Business leaders may gain a better understanding of ways to improve employee satisfaction.

A Review of the Professional and Academic Literature

The purpose of this qualitative, exploratory single case study was to investigate strategies business leaders use to increase IT employee retention. The research question that emerged from this literature review was as follows: What strategies do leaders use to increase IT employee retention in Norfolk, Virginia? In this section, I discuss my literature search strategy. I then provide a more in-depth overview of the conceptual framework. This discussion is followed by an extensive review of the literature. In preparing for the review of the literature, I used sources from Walden University Library databases, and including ProQuest, EBSCOhost, Science Direct, Academic Search Complete, ERIC, and Lexus Nexus. Supplemental information from resource volumes, journal articles, and recent periodicals from various university libraries and Internet sites provided the material for this literature review. Search terms included the following: *IT employees, employee retention, work-life balances, employee turnover, IT workforce, IT professionals, IT workers, job dissatisfaction, job satisfaction, turnover intentions, intention to stay, pay, organizational commitment, nature of work, retention, turnover, compensation, company policy, quality of supervision, job security, working conditions, recognition, opportunity for advancement,* and *promotion.*

The literature review consists of 153 peer-reviewed journal articles, seminal books, and relevant governmental websites. The use of multiple sources ensured scholarship, rigor, and depth. Of the 153 unique sources referenced in the literature review, 146 are current, peer-reviewed research articles published from 2012 to 2016 (see Table 1).

Table 1

Summary of Sources Used in the Literature Review

Reference type	Count	Percentage
Peer-reviewed journals within 5 years of 2016	141	92.15
Peer-reviewed journals more than 5 years of 2016	5	3.27
Non-peer-reviewed journals within 5 years of 2016	2	1.31
Non-peer-reviewed journals more than 5 years of 2016	0	0
Dissertations within 5 years of 2016	0	0
Dissertations more than 5 years of 2016	0	0
Books within 5 years of 2016	2	1.31
Books more than 5 years of 2016	3	1.96
Government web sources	0	0
Other websites	0	0
Total	153	100.00

The conceptual framework covered in this literature review includes Herzberg's (1959) two-factor theory, organizational factors, and work-life factors. There are detailed discussions about the intrinsic and extrinsic factors associated with employee retention. The discussion of organizational factors includes topics such as IT employees and job satisfaction. The findings were from one military organization in Norfolk, Virginia and addressed the problem of retention of IT employees.

Herzberg's Two-Factor Theory

In this qualitative case study, I explored, described, identified, and analyzed factors that leaders used to increase retention of IT employees. The key concepts were (a) general working conditions, (b) benefits, (c) pay and promotional potential, (d) work relationships, (e) facilities, (f) training and personal development, (g) recognition, (h) opportunities to use inherent ability, (i) work-related activities, and (j) family and work-life balance. The two-factor theory guides leaders to ensure the sufficiency of hygiene factors to avoid dissatisfaction, thereby concentrating on the nature of work to ensure that it is stimulating and rewarding enough to increase retention of IT employees.

Over time, Herzberg noted that job satisfaction and dissatisfaction develop from two different sets of factors, identified as *hygiene* and *motivator* factors (Herzberg, 1959; Lumadi, 2014). Hygiene factors are intrinsic to the job context and affect job dissatisfaction (Dhanapal, Alwie, Subramaniam, & Vashu, 2013; Schermerhorn, 2012). Gius (2013) asserted that Herzberg identified two distinct sets of factors. One set concerns motivating or satisfying employees, and the other set demotivates or creates dissatisfaction. Makewa, Ndahayo, and Kabanda (2014), indicated that intrinsic factors, known as the job content factors, define actions, which employees perform as part of their work; their responsibilities and achievements. Jansen and Samuel (2014) noted that motivators are extrinsic factors to the job content and affect job satisfaction. The conceptual framework for this study is the two-factor theory that Herzberg (1959) developed. Ghapanchi, Ghapanchi, Talaei-Khoei, and Abedin (2013), Nanjamari (2013), and Worlu and Chidozie (2012) extended the works of Herzberg, concluding that while certain factors in the workplace cause job satisfaction, a separate set of factors affect job dissatisfaction. Employee job satisfaction is the result of extrinsic factors and job dissatisfaction is the result of intrinsic factors. These factors can contribute a great deal to the level of job satisfaction an employee experiences at work. A number of theories are available to explain the motivational contents and cognitive processes that constitute the issues of job satisfaction in any organization (Saifuddin Khan Saif, Farzand, &

Muhammad, 2012; Sukriket, 2015). Most of the debates surrounding theories of job satisfaction start with Maslow's (1943) theory of hierarchy of needs.

Herzberg's (1959) theory is in alignment with Maslow's theory in regard to safety, security, and a sense of belonging. Maslow's (1943) theory identified five levels of need: physical, safety, social (belongingness), esteem, and self-actualization. The levels of Maslow's hierarchy of need are in a specific order. Maslow's hierarchy of needs is based on the premise that individuals are not motivated by higher needs until the lower needs have been satisfied (Hanif, Khalid, & Khan, 2013). As a result, people tend to fulfill their needs starting at the bottom of the list. Maslow designed this theory in 1943 based on deficiency and growth needs. Maslow (1943) arranged human needs in an ascending order of: (a) physiological needs, which are needs for basic things of life, such as food and water; (b) safety needs, which include the need for security; (c) social (belongingness) which include love, and feeling of companionship; (d) self-esteem needs, which is the need for recognition, and respect; and finally (e) self-actualization needs, which is the need for self-fulfillment and making use of one's most unique abilities (Ifedili & Ifedili, 2012). Herzberg's theory supported a belief that one set of factors determined job satisfaction and a different set of factors determined job dissatisfaction. Herzberg's theory is a departure from the traditional approach that viewed job satisfaction and dissatisfaction as being on opposite ends of the same continuum (Gkolia, Koustelios, & Belias, 2015; Sithole & Solomon, 2014; Vroom, 1964). In their study to examine which factors of Herzberg's theory contributed to job satisfaction, Purohit and

Bandyopadhyay (2014) and Sithole and Solomon (2014) revealed that there is a relationship between hygiene and motivator factors.

Kataria, Garg, and Rastogi (2012) recognized that job flexibility, along with (intrinsic) hygiene factors, are critical incentives for all employees. Leaders should consider hygiene (intrinsic) and motivators (extrinsic) factors to be an important tool to increase IT employee retention (Gillet et al., 2012; Kataria et al., 2012). The goal is to retain and grow employees into multi-talented future IT professionals who may use their skills and competencies to their maximum degree.

Intrinsic Factors

In Herzberg's two-factor theory, intrinsic factors are those job conditions intrinsic to the work itself that are essential for the existence of motivation at a workplace (Tuwei et al., 2013). Intrinsic factors that affect job dissatisfaction include (a) salaries, (b) company policy and administration, (c) good interpersonal relationships, (d) quality of supervision, (e) job security, (f) working conditions, and (g) work-life balance. While these factors do not lead to positive satisfaction in the long-term, their absence in the workplace will lead to dissatisfaction. Salary is a fixed compensation periodically paid to an employee for regular work or services. Salary is a motivator as well as an employee retention technique. Aguinis, Gottfredson, and Joo (2013) and Mbah and Ikemefuna (2012) stated that among all types of reward, monetary pay is one of the most important and significant intrinsic factors affecting employee retention. Creating a compensation structure that supports employee pay is a challenge.

While many organizations base their pay rates on employee performance, others do not. Some organizations may try to promote a team-based environment while at the same time rewarding individual employees for outstanding achievements. Rewarding individual employees while using the team approach results in differences in pay, which can be problematic, leaving some employees wondering why coworkers are receiving higher wages for what the employees perceive to be the same work (Sinha, 2012). Frustration and cynicism are often the result. It can be especially disheartening when employees see that their supervisors and leaders are receiving generous rewards while employees rarely receive significant pay increases. In this situation, having a clear set of policies regarding salary could help an organization avoid problems with the appearance of unfair treatment among employees. Such policies should seek to keep employees well informed about important affairs of the organizations so they understand how stratified pay structure can benefit them if they put in the extra time and effort.

Organizations should also involve employees in decision-making. Thirulogasundaram and Kumar (2012) indicate effective communications concerning human resource policies improve employee identification with their organization and builds openness and trust. Supanti, Butcher, and Fredline’s (2015) research suggests employee involvement in decision-making helps create a sense of belonging among the employees, building a good working environment and positive employer-employee relationships. Fostering interpersonal relationships and providing opportunities for community involvement can also be important factors in establishing employee satisfaction.

An interpersonal relationship is a strong, deep, or close association or acquaintance between two or more people that may range in duration from brief to enduring. Research indicates that the millennial generation currently entering the workforce in record numbers is particularly community-minded (Valenti, 2014). Members of this generation want more from their jobs than just remuneration; they want to build relationships to make a difference (Valenti, 2014). A workplace environment that values employees' interpersonal relationships, culture, collaboration, teamwork, community involvement, and respect results in longer tenure (Hynes, 2012). In his study, George (2013) suggests retaining valuable employees by paying proper attention to every employee pays off. This process includes supervision, training, career visibility, explicit ranking systems tied to incentives, and recognition of unique cultures when present. While hygiene factors are crucial to retention of quality employees, supervisors play a key role in managing these factors.

Supervisors should receive training in specific strategies to manage working conditions in their organizations effectively (Molloy & Barney, 2015; Kelly et al., 2014). Mardanov, Heischmidt, and Henson (2014) stressed that a leader's positive attitude improves the employee attitudes toward work, their leader, and the organization. Hynes (2012) and Mahal (2012) found leadership style can positively affect organizational commitment, growth, and work satisfaction. In turn, a high degree of work satisfaction enhances organizational commitment and work performance. According to Wallace, Butts, Johnson, Stevens, and Smith (2013) and Yoon, Sung, Choi, Lee, and Kim (2015), organizations should consider the use of supportive supervision, positive feedback, and rewards for accomplishments to increase the tenure of younger employees. IT employees have a desire to keep pace with the latest technology to avoid stagnancy in their work that could affect job security.

Omar, Anuar, Majid, & Johari (2012) and Wong and Laschinger's (2015) research study on job security found job performance and organizational commitment negatively correlated with job security. Employees not remaining technologically current could easily result in reduced company marketability, poor work-life balance, the fear of outsourcing, and being laid off without the skill set needed to acquire another position within the IT field (Russell, 2013). Dube (2014) reviewed studies on job security and job satisfaction and determined job dissatisfaction to be the outcome of insecurity among employees. Employees in IT often have long working hours, rigorous work, incessant pressure and pressing deadlines, which collectively challenge their work-life balance on a daily basis (Nanjamari, 2013). Leaders have discovered that if they manage work-life employee conflicts appropriately, they retain more of their talented workers (Kar & Misra, 2013; Nelson, 2013; Viswanathan & Kumaran, 2013).

According to Viswanathan and Kumaran (2013), work life balance refers to being able to maintain satisfying work and family environments without compromising on the deliverables of either role. Because work and family life each produce a set of stressful problems, controlling one is difficult, but controlling both at the same time is, or seems, impossible. An employee must work hard to balance these complex and conflicting demands and those who fail often become less productive or quit the organization (Kar & Misra, 2013; Raaijmakers, Vermeulen, Meeus, & Zietsma, 2015). Investigating and understanding extrinsic factors and the IT employee's value perception will also help leaders' build and create a work-life environment that helps achieve high-levels of employee job satisfaction.

Extrinsic Factors

According to Herzberg's two-factor theory (Herzberg, 1968; Ismail, & El Nakkache, 2014; Lumadi, 2014), extrinsic factors also known as satisfiers, are involved in performing the job. Examples includes (a) a sense of personal achievement, (b) status and recognition, (c) challenging and stimulating work, (d) responsibility, (e) opportunity for advancement, and (f) promotion and growth. Cong and Van (2013) demonstrated that challenging and stimulating work, pay, or benefits do not motivate employees to do excellent work. Instead, Herzberg found extrinsic factors are the result of having interesting, challenging work that allows an employee to achieve and to feel recognized. When an employee feels recognized for his/her personal achievements, the employee will work harder for the organization. Lim, Stratopoulos, and Wirjanto (2013) posited that status and recognition only have value if they satisfy an important extrinsic want or need, in turn, giving employees the impression that they have value within the organization.

In the list of extrinsic factors, the terms status and recognition refer to authentic and genuine appreciation of an employee's accomplishments (Aisha, et al., 2013; Sinha & Sinha, 2012). Herzberg found that when leaders recognize an employee's accomplishments the employee might be more effective. Verbal praise has the ability to enhance company loyalty, motivation, and perseverance (Aisha et al., 2013; Sinha & Sinha, 2012). To have the greatest impact in the workplace, recognition activities should also reinforce and encourage work that advances employees (Gupta, 2016). Researchers McIver, Lengnick-Hall, Lengnick-Hall, and Ramachandran (2013) asserted that good employees want to develop new knowledge and skills in order to improve their value in the workplace and enhance their own self-esteem. Kehoe and Wright (2013) noted if employees are performing at a higher level, they are likely to have advancement opportunities in the organization. An advancement opportunity is the possibility that an employee could move up in the company. Bakker, van Veldhoven, and Xanthopoulou (2015) explained that clear communication provides support for growth and includes appropriate coaching, guidance, and a sense of direction and contribution.

Jaskyte (2012) and Tan, Nadarajah, Sim, and Ng (2014) agreed that investing in training well-rounded employees would encourage their retention by equipping them to take advantage of promotion possibilities and chances to move up the chain of command. Kataria, Garg, and Rastogi (2012) and Mirvis (2012) emphasized that, while talented employees are required for maintaining a competitive advantage, these employees are seeking career growth opportunities to develop and prosper in their chosen fields. Plans for providing such opportunities should include accurate career assessments, paths for internal promotion, and career advancement.

Jerome, Scales, Whithem, and Quain (2014) brought out the fact that younger employees are graduating from college and entering the labor pool as a large and influential group. As the baby boomers retire, the majority of the workforce will consist of generation X and Y employees (Jerome et al., 2014). For this reason, employers are recognizing the need for specific plans to retain this new pool of talented employees (Miller, Hodge, Brandt, & Schneider, 2013).

Kehinde (2012) research study on workplace issues elaborated on a range of important strategies that are important to retain talented employees. Kehinde suggested eight strategies for maintaining talents. Kehinde's strategies include (a) regular training sessions to help employees achieve goals on their personalized career paths; (b) fair treatment for all employees to foster a positive work environment; (c) incentive packages; (d) keeping and maintaining personal touch with each employee; (e) positive and constructive feedback on a regular basis; (f) socialization of employees to corporate culture; (g) senior managers committing to their roles as leaders; and (h) freedom of the talented employee to set his/her own work schedule. Having a balance between work and responsibility is vital to an employee's success (Kehinde, 2012).

Joseph, Gautam, and Bharathi's (2015) research explained the importance of work and responsibility and the relationship between perceived stress and job satisfaction. Joseph, Gautam, and Bharathi's (2015) emphasized that work-life is a crucial issue and that employee commitment is particularly high in the organizations that have work-life balance policies. They suggest a workplace culture supportive of a work-life balance while management support to employees is fundamental to building employee commitment to the organization.

In their research study, Hussain and Saleem (2014) and Mohammed, Gerry, & Michele (2012) found the use of work-life balance practices, when provided in the context of supervisor and organizational support, can reduce work-life conflict, and increase positive appraisals of one’s employer. The resulting workplace atmosphere is often associated with positive, desirable employee behaviors and attitudes such as reduced absenteeism and increased job satisfaction, productivity, organizational commitment, and loyalty, all of which can lead to higher levels of organizational performance. In addition, establishing a leadership and mentoring program can help ease any uncertainty employees may feel while creating a support network to help better understand the corporate culture, accountability, team interaction, and perhaps most importantly, the unspoken rules of the business (Marsan, 2012; Wheeler & Allen, 2013).

Although largely discredited, Herzberg’s theory had a significant impact on subsequent job design. Employees perceive the motivators that symbolize their psychological needs as an additional benefit (Gittell, & Douglas, 2012). Applying the two-factor theory, Sinha (2012) contended that minimizing factors that bring dissatisfaction results only in a harmonious work environment and not motivation or job satisfaction. In Sinha’s (2012) view, employers should invest in extrinsic factors to increase employee job satisfaction.

Information Technology Employees

The term information technology refers to employees of the computing related workforce (França, Da Silva, de LC Felix, & Carneiro, 2014; Jacks & Palvia, 2014). Within the workforce of organizations, employees primarily belong to the group of specialists, since they are experts in the specific application field of IT (Leidner, Moquin, & Riemenschneider, 2013; Owens & Hekman, 2012). The focus of the profession is on programmers, analyst, end-user support, administrators, technicians, and IT project managers.

Lo (2015) noted that three general career paths can be distinguished for IT employees. First, a career path in which the professional holds only technical jobs during their whole career (technical career). Second, a career path that begins with technical positions and ends in supervisory positions within the division (managerial career). Third, a career path in which the employee moves from an IT job to a non-IT job (Wang & Kaarst-Brown, 2014).

Holtgrewe (2014) suggested having a better understanding of career paths that drive IT employees in the various job types, employers can optimize their strategies to retain and recruit their valued employees. There are also characteristics that influence the IT profession. The rapid technological change (e. g. shift to mobile devices and applications) results in a fast obsolescence of IT skills, so there is a constant need for the development of skills for these employees (Borrego, Foster, & Froyd, 2014; Charlier, Guay, & Zimmerman, 2015). Holtgrewe (2014) notes the importance of technical skills such as knowledge of programming languages and tools, server, network and cloud technologies and structures. Holtgrewe reflected that employees increasingly need non-technical skills and competencies such as English, project management and organizational skills, team working and communication skills, and both creativity and systematic ways of working. As such, recruiting, retaining, and developing competent IT employees are important concerns for top management.

According to Connell, Gough, McDonnell, and Burgess (2014) and Tirgari (2012), IT employees must continually learn new skills over their entire career in order to adapt to new technological development and ever changing business requirements. The sheer volume of learning can increase work exhaustion, with a negative effect on turnover. Companies can design jobs to leave a larger amount of autonomy over pace and process in the hands of the IT employee. There is a great demand for IT employees due to the increased relevance of information systems (IS) and technologies for the competitiveness of an organization (Tornack, Pilarski, & Schumann, 2015). The labor market cannot fulfill these demands so an imbalance occurs in the availability of employees. In most companies' demand for software solutions and functionality exceeds the budget (or capacity of the related human resources) for development and maintenance by up to 500%, especially when accounting for the hidden queue of software solutions (Pass & Ronen, 2014).

Moquin and Riemenschneider (2014) research found that employers often ask IT employees to do more with less, and work in highly complex boundary spanning environments. In addition, organizations continue to reduce overhead by retaining enough staff to control operational costs. A possible side effect of this event reduced the number of previously full time employees. Additionally, such adaptive reactions may be evident by increases in employee resentment and stress, eliciting concerns over job security, the intrinsic value of the profession, and pay.

Hassan (2014) stated pay satisfaction is one of the main concerns of both employers and employees. For employees, pay is of obvious importance regarding satisfaction of their economic needs. It is essential that employees are satisfied with their overall pay as this may affect their attitude and behaviors. Employee job satisfaction goes beyond an income, an IT employee earns shows status (Nanjamari, 2013). IT employees who work in information technology fields are different from other employees in their approach to occupation; they do work for money, but they often do the same kind of work for pleasure. This one characteristic may well make the difference between what factors influence job satisfaction in other workers and what factors may be significant, not as significant, or exceptional to IT employees.

Employee Job Satisfaction

Employee job satisfaction is a measure of how happy employees are in their jobs and working environment (Spies, 2014). Researchers' Elias, Smith, and Barney (2012), and Javed and Javed (2013) described job satisfaction as positive feelings about a job resulting from an evaluation of its characteristics. An employee with a high level of job satisfaction holds positive feelings about their job and tends to be more motivated to perform well. Conversely, an employee with a low level of job satisfaction holds negative feelings about their job and is generally less likely to perform.

These levels of motivation directly affect overall organizational performance and goals achievement. According to Eggerth (2015) and Mahdi, Mohid Zin, Mohd Nor, Sakat, and Abang Naim (2012), job satisfaction and motivation are major determining factors that assist in channeling, employees' efforts towards the attainment of organizational goals. When unmotivated employees complete their tasks out of necessity, rather than for the success of the organization, their performance can be lackluster. When employees align their personal goals with the company's organizational goals, job satisfaction and performance tend to increase.

Mathew, Ogbonna, and Harris (2012) reflected that job satisfaction, productivity at work, and the quality of work lead to profitability and growth in software companies. The quality of work also contributes to organizational innovation. Similarly, Graziotin, Wang, and Abrahamsson (2014) expressed that high-tech companies like Google, Facebook, and Supercell are well known for their job satisfaction perks, such as having fun things to do and good food to eat during working hours. Graziotin, Wang, and Abrahamsson (2014) also stated that scientific articles have long claimed that the best way to improve software developers' job satisfaction performance is by focusing on employees because employees trump process.

VanMeter, Grisaffe, Chonko, and Roberts (2013) expressed one of the biggest challenges for organizations in the 21st century centers around job satisfaction and the ways to attract, retain, and grow employees in a multi-generational workforce. Researchers, Jerome, Scales, Whithem, and Quain (2014) found that job satisfaction and work levels differ according to age and generations. Rosen and Lara-Ruiz (2015) defined the baby boomer generation as employees born between 1946 and 1964. Accordingly, generation X refers to employees born between late 1965 and 1976.

Rosen and Lara-Ruiz (2015) research findings noted baby boomers often defined themselves by their careers, while generation X viewed work as just a job and wanted freedom and autonomy. Based on these key points, the relationship between job satisfaction and the younger generation of employees, 21st century companies should develop cross-generational strategies Rosen and Lara-Ruiz (2015). The knowledge, skills, and relationships of IT employees are an organization's biggest asset and main source of competitive advantage (Hom, Mitchell, Lee, & Griffeth, 2012; Kumar, 2012; Yucel, 2012). Employees will either like or dislike their jobs, given the right conditions unique to the employee; some employees will stay at the organization, and others will leave (Yucel, 2012).

Barringer and Orbuch (2013) and Shahid and Azhar (2013) noted providing a stimulating workplace environment that fosters job satisfaction and helps create motivated and empowered employees while reducing job dissatisfaction and employee turnover. Researcher's, Elias, Smith, and Barney (2012), and Javed and Javed (2013) concluded that motivation in employees is brought about through a combination of job satisfaction and dissatisfaction and, according to Wyland, Lester, Ehrhardt, and Standifer (2015), a high ratio between the number of satisfied and dissatisfied employees ensures superior financial performance.

Employee Job Dissatisfaction

Employee job dissatisfaction, according to (Katenova, Mahmood, & Sharfaraj, 2013; Sukriket, 2015) drives employee turnover when employees have a negative perception of hygiene factors present in their workplaces. Hygiene factors are intrinsic to job context itself and include factors such as compensation, development and training, promotion opportunities, job security, working conditions, policies and procedures, supervision, and interpersonal relations (Gius, 2013 & Gupta 2014). Specifically, factors that have a direct effect on job dissatisfaction are (a) poor workplace conditions; (b) unequal or substandard pay (c) less than meaningful work; (d) feelings of nonsupport from managers and leaders (e) forced communication with other employees (Graziotin, Wang, & Abrahamsson, 2014; Shuck & Herd, 2012) and outsourcing (Larsen, 2016). Employees will not stay for long when working conditions are substandard or the workplace lacks important facilities, such as proper lighting, furniture, restrooms or other health and safety provisions (Gius, 2013; Ricciardi & De Paolis, 2014; Tastan, 2014). Unequal or substandard pay structures and low pay also lead directly to job dissatisfaction, which, in turn, can easily influence IT employees to quit (Dodd, 2012; Giancola, 2012; Kraimer, Shaffer, Harrison & Ren 2012). Without an attractive workplace environment, and continuous outsourcing of IT jobs; job dissatisfaction among critical talent increases markedly (Ambigai, 2013; Padma et al., 2015).

IT outsourcing has led to employee dissatisfaction and job loss in the US. The outsourcing industry has a net worth of US $250 billion, which has increased over the past decade (Shah, 2013; Larsen, 2016). Hegde, Bhagwatwar, Bala, & Venkataraman (2014) indicated that some organizations have outsourced entire functions offshore to countries such as India where skilled labor is cheaper. Outsourced jobs include data entry workers, computer programmers, software engineers, and IT analysts (Chung & Khan, 2012). IT outsourcing has also had an impact on the demand and supply of skilled workforce, cost of producing IT workforce (in terms of vocational training and education), and on the salary of IT employees (Chung & Khan, 2012). Hegde, Bhagwatwar, Bala, and Venkataraman (2014) believed outsourcing plays a negatively moderating role in the relationship between an employee’s promotional opportunities and compensation. Because outsourcing has become a norm in many organizations, its impact on employee intentions to stay, job dissatisfaction, and turnover rates has remained constant (Hegde, Bhagwatwar, Bala & Venkataraman, 2014).

Employee Intention to Stay

Employee intention to stay refers to an individual's perceived probability of staying with their organization. According to Aguinis et al. (2013), employees will remain at and be loyal to their organization when they feel they have value, take pride in their work, and contribute to their full potential. Shrestha and Mishra (2015) and Onuoha et al. (2015) adds when employees feel their organization treat them fairly, they are more likely to exhibit a variety of desirable attitudes, such as increased commitment to the organization.

Ratna and Chawla (2012) and Wang, Yang, and Wang (2012), noted that employees intentionally stay with companies that provide a work-life balance, competitive pay and bonuses, long term financial and career security, training in new technology, business and leadership skills, as well as retirement arrangements on which they can depend. In addition, Researchers have examined the factors that influence employees' intention to remain in organizations (Fallon, & Rice, 2015; Babalola, Stouten, & Euwema, 2015; Stackpole, 2013). These factors include (a) employee engagement, (b) job stability, (c) training, (d) work- life balance, (e) ethical leadership, and (f) a well-executed on-boarding program (Hynes, 2012; Shuck & Herd, 2012).

Gill, Dugger, and Norton (2014) explained that engaged employees are those who the organization compensate well, and who have their interests aligned with the interests of their organizations. They are highly desired by employers since employers generally reap rich returns from IT talent investments. According to Demirtas (2015), well run organizations aspire to have engaged employees and spend considerable resources to measure and improve employee engagement.

King (2010) points out that General Mills' personnel strategy revolves around hiring the best and brightest employees and then keeping them engaged and challenged enough to want to spend the rest of their careers with the 14.8 billion-dollar company. Korsakienė, Stankevičienė, Šimelytė, and Talačkienė (2015) argued that organizations should not disregard the importance of measuring employee engagement, even in economic hard times, because high levels of employee engagement in domestic and global companies promote retention of talent, foster customer loyalty, and improve organizational performance and stakeholder value (Gill, Dugger III, & Norton, 2014). In the IT field, the average tenure at General Mills is about 13 years for an employee and 16 years for a manager (King, 2010). With the growing importance of IT, companies realize how valuable highly experienced and invested employees are. Companies such as General Mills' are discovering ways to attract talents who want to stay for the long term (King, 2010).

Ratley, Jain, Patel, and Gujar (2014) and Sithole, and Solomon (2014) expressed those chief information officers who are unable to offer long term job stability should offer career security benefits such as training. While the economy continues to recover, employees maybe feeling more secure about their jobs. Having a sense of job security may lead employees to look for opportunities within their organizations to demonstrate their skills and abilities to prepare themselves for career advancements. When employees feel that they are using their skills and contributing fully to the success of their organization, they are more inclined to stay with the organization.

According to Adyasha (2013), there is a trend of an increased number of job applicants seeking out companies that encourage factors beyond the traditional compensation/benefit packages offered by employers, such as employee input, growth, and education. Allen and Shanock (2013), and Werner, Mac Dowell, Bullock, and Fernald (2012), stated that employers should have specific policies and procedures in place to address educational and employee growth. In fact, Uruthirapathy and Grant (2015) noted that one of the main reasons IT employees and managers leave is to take jobs to learn new skills.

Ertürk and Vurgun (2015) noted that IT jobs require a significant amount of learning for IT employees to stay current while performing their expected activities. Fewer companies are providing training in emerging technologies for the long term (Spies, 2014). According to Wheeler and Allen (2013), many firms are reluctant to fund training and professional development. Still, IT employees have a fervent desire to keep pace with the latest technology to avoid stagnancy. Not remaining technologically current could easily result in reduced company marketability, the fear of the company outsourcing the function, and laying off the employees without the skill set needed to acquire another position within the IT field (Shami & Rehman, 2015).

As such, critical talent in almost all IT sectors is waning in spite of a large population of young employees with intentions to stay in IT careers. This exodus of personnel costs organizations time, human capital, and productivity. In addition, the organization loses money spent in the training and development of these workers (Nanjamari, 2013). Kumar (2012) notes employee-related costs have risen to more than two-thirds of organizational spending and, increasingly, companies are viewing intention as a significant driver of shareholder value and bottom line. As such, Ahmad, Shafique, Ahmed, Saleem and Imam (2015) and George (2015) asserted that successful organizations make, among other things, employee training their utmost priorities.

Gayathri, Sivaraman, and Kamalambal (2012) expressed those CIOs who are unable to offer long-term job stability should offer, in addition to training, career security benefits such as flexible work schedules that balance work and family and encourage IT employees and managers to remain in IT. Another main reason employees and managers leave their jobs is to take jobs that allow them to reduce their commute, work at home, and or set their own hours. Studies show employees want a flexible schedule, including working from home arrangements (Ahmad et al., 2015; Marsan, 2012). Opportunities exist for organizations to offer a modern workplace for employees such as setting up a virtual workforce where employees are allowed to work from home one or two days a week. This strategy plays well with younger employees who often want to do more work on their handhelds devices, from home, well outside of the traditional 9 to 5 scenario (Georgious, Westbrook & Braithwaite, 2012; Marsan, 2012).

According to (Shaukat, Ashraf, & Ghafoor, 2015; Tong et al., 2015) beyond offering flexible work options, companies encourage emerging leaders to engage in activities that allow them to share ideas and opinions, as well as activities which boost their involvement and captures innovative ideas. These activities provide the CEO and other leaders a direct line to the company's best and brightest employees. Stackpole (2013) stated that having a well-executed on-boarding program is important. It allows new hires to become more productive in a shorter time while they become engaged in the company's culture and business goals. In an interview conducted by Stackpole (2013), 62% of information technology leaders noted that on-boarding programs played an extremely important role in establishing a new hire's ability to be productive and add value. Forty-six percent noted that on-boarding programs were extremely important tools for determining whether a new hire would be successful in the company long term (Stackpole, 2013). On-boarding is essential, so expectations between the employee and employer should be very clear (Stackpole, 2013). On-boarding empowers employees by letting them know the resources that are available to them and the relationships that are required of them (Stackpole, 2013). Business Leaders should consider the impact the on-boarding program has on mentoring and retaining employees in their company.

Employee Retention

Employee retention concerns are emerging as the most critical workforce management challenges of the 21st Century. As Das and Baruah (2013) stated, one of the biggest challenges for organizations is resource retention. Some IT companies provide lucrative pay and benefit packages yet remain ineffective at retaining their employees (Ambigai, 2013; De Gieter & Hofmans, 2015). Retaining skilled employees plays an important role in any organization because employees' knowledge and skills are central to the company's ability to be economically competitive (Das & Baruah, 2013; Robak, 2013; Vasquez, 2014). Pokorny (2013) agrees that organizations are better able to retain employees who are more satisfied with their work, and whom they reward and recognize well.

In addition, some factors an employer could consider to increase employee retention include guidance, training, and support (Werner, Mac Dowell, Bullock, and Fernald, 2012). Ugwu, Onyishi, and Rodriguez-Sanchez (2014) suggested that employers allow for (and even encourage) innovation and creativity by having a work environment that invests in the individual development of its employees. Researchers' (Coetzee & Stoltz, 2015; Schlechter, Thompson, & Bussin, 2015) explained that a successful engagement and retention approach includes implementing a highly visible career planning strategy within the IT organization. Such a career planning strategy provides the IT organization with a talent pipeline and avoids the costs and disruption of staff retention. Career planning provides employees with professional growth and development, as well as a sense that the organization values them. Companies need to set up suitable plans to make the retention process work, and then they must closely monitor those plans (Craig, 2015).

In Sharma's (2015) view, the key to a successful retention effort revolves around a company's focus on its top performers. According to Martin and Schmidt (2010), 25% of high potential employees tend to leave their companies within their first year; 33% do not put their efforts into the job; and 25% believe their personal aspirations are quite different from what the organization has planned for them. Sharma (2015) notes that in many cases, recruiters for competitors aggressively pursue these best employees and the employees are well informed enough to remain aware of their value in the current job market. Making sure these top performers are content and secure in their work environment provides a hedge against them and others leaving Sharma (2015).

Employee Turnover

Employee turnover refers to the voluntary or involuntary movement of employees in and out of an organization (Choi, Musibau, Khalil, & Ebi, 2012; Kraimer, Shaffer, Harrison, & Ren, 2012; Arokiasamy, 2013). Hancock, Allen, Bosco, McDaniel, and Pierce (2013) further explain that employee turnover refers to a company's loss of people and a percentage of staff within a given period. Pietersen and Oni (2014) identify two types of turnover. Voluntary turnover is the result of an employee's decision to seek alternative employment. Involuntary turnover can be attributive to uncontrollable factors such as retirement, ill health or death, or an employer's decision to discharge an employee. While voluntary turnover is far more prevalent than involuntary turnover both types of employee turnover are dysfunctional for organizations.

Berry, Lelchook, and Clark (2012) illustrated that company losses due to leaving, replacement and transition costs, loss of production, reduced performance levels, unnecessary overtime, low morale and a competitive disadvantage are common occurrences after an employee leaves. For example, considering a single model, downtime, recruiting activity, interviewing, and ramp-up time, replacing an entry-level position typically costs 50% to 100% of the employee's salary (Berry, Lelchook, & Clark, 2012). IT employee turnover costs companies approximately 150% of an employee's annual income (Hester, 2013). In addition, according to (Guarazada & Rao, 2013; Lo, 2015) replacing a manager or an executive level IT professional can cost up to 200% of an individual's salary.

Robak (2013) stressed that leaders must learn to face the truth about turnover. First, not all employees who leave an organization are unsatisfied with the organization. Some employees will leave because of low morale due to the current recession or frustrations with how slowly the recovery is progressing (Ganster & Rosen, 2013). Some will leave town, quit because of family concerns, change professions, even start a business of their own, or retire (Saleem & Gull, 2013). Employee turnover in IT, for example, will increase as Baby Boomers retire in the 21st century (Starks, 2013). Nevertheless, organizations can prevent most employee turnover.

Junare and Patel (2013) highlighted the fact that some employees leave due to any combination of a poor quality of work life, compensation below market level, lack of training and development opportunities, environment and gender differences, and an inability to advance their careers (Ganster & Rosen, 2013; Park & Shaw, 2013). Employees who work overly difficult or excessively simple jobs are often disgruntled and quit (Herzberg, Mausner, & Snyderman, 2011; Tnay, Othman, Siong, & Lim, 2013). Some employees may feel overworked, unheard, left out of the loop, and or underappreciated, which are all factors any company can repair (Ganster & Rosen, 2013).

It is generally known that if an employer can identify the reasons a worker is productive, reports to work on time, and remains with the company, the employer might then be able to unilaterally apply these three motivational factors to the entire workforce thereby reducing employee turnover (Sun, 2012; Posthuma, Campion, Masimova, &

Campion, 2013). Overall, researchers think that providing a simulating workplace environment that fosters job satisfaction, motivation, and empowering individuals can reduce employee turnover (Barringer & Orbuch, 2013).

Shrestha and Mishra (2015) and Kang, Gatling, and Kim (2015), evaluated organizational support as a turnover variable by sampling 297 state IT employees using an online questionnaire composed of 145 questions. The study investigated how IT employees perceived organizational support as a variable influencing their turnover intentions. The findings show that management and leadership activities contributed to the qualities that make an organization attractive for IT employees to remain with it.

Hassan (2014) conducted a case study exploring the factors that influence turnover intentions among technical IT employees in XYZ. Hassan selected a descriptive research method, which the researcher used primarily to achieve the research objective as well as the purpose of the study. The population size was 110 and the research instrument was a questionnaire. The researchers included technical employees of various ages, races, and educational background in the sample and did not target any particular demographic group for this study. Out of 110 questionnaires, there were only 103 usable, which represent a response rate of 93.6 %.

Hassan (2014) examined seven independent variables: organizational commitment, job stress, job characteristics, promotion opportunities, pay level and rewards, quality of work life, and job satisfaction and the dependent variable turnover intention. The researcher used the Statistical Package for Social Science (SPSS) version 16 to collect and analyze the data. The regression analysis of organizational commitment, job characteristics, promotion opportunities, pay level and rewards, quality of work life and job satisfaction on turnover intentions of IT employees indicated negative and significant relationship. The analysis shows only job stress had a positive and significant relationship with turnover intention. This research shows the factors directly related to turnover intentions, which is consistent with other researcher findings. Findings of this study also suggested that job stress is the most significant factor influencing turnover intention among technical employees in XYZ. The researcher has determined the key reasons that associated with intention to leave among IT technical employees in the organization. Hassan (2014) suggested that XYZ focuses on strategies to reduce job stress by implementing flextime, which encourages better relationship between the employer and it can bring better health to employees.

Hassan (2014) offers insights into how organizations can improve the retention rate of high valued IT technical employees of XYZ. The results of this study shows that XYZ could find ways to enhance the employees' quality of work life since most of the employees intend to quit the organization if they are dissatisfied with their quality of work life and perceived higher job stress. A satisfied employee brings positive effect and desirable work values leading to enhanced efficiency and productivity. The analysis revealed that job satisfaction is one of the factors that lead to turnover intention. XYZ should face this challenge and find ways to increase job satisfaction to ensure that their business stay competitive. Indeed, when XYZ invests in its employees, the employees are in turn are expected to be more committed to the company.

Cha and Quan's (2011) study focused on a sample of 15,554 IT employees in two developed economies (the United States and Europe) and two developing countries (India and China). These researchers examined similarities and differences in factors that affect the turnover of IT employees. Cha and Quan's (2011) findings reveal a set of important reasons for turnover intentions and include factors such as concerns about IT certifications, past turnover behaviors, industry types, HR practices, and the level of employees' concerns about IT outsourcing and offshoring. In addition, the research suggests that the framework for global IT turnover studies should include four important variables, which are the number of new certifications, turnover history, organizational support, and concern about IT outsourcing.

Managers in global firms should give the highest retention priority to three factors. First, training may significantly reduce turnover intention. In addition, when external factors such as outsourcing, threatens IT jobs, managers should communicate frequently with IT employees to resolve anxiety about their job losses. Further, managers should pay special attention to employees who have many certifications and or past turnover behaviors (Cha & Quan, 2011). Since dissimilarities also exist, global studies on turnover should include country specific factors to discern the influences of cultural, economic, and social differences. More specifically, managers should be mindful of differences across countries because human resources practices that work in developed countries may not be effective in developing countries. For example, effective ways to reward IT employees may be different among different countries. Managers may consider using raises for rewarding certification as a retention tool in developed countries.

Developing countries face a more daunting task for IT talent retention because they have far fewer options at their disposal. As a result, they must work diligently to formulate relevant HR practices to retain talent (Cha & Quan, 2011). Given the positive relationship between new certification and turnover intention, some people may argue that the strong organizational support for certifications that enable employees to obtain more IT certifications may actually increase turnover intention. HR managers should consider reasonable ex-post rewards and compensation for employees' certification achievements (Cha & Quan, 2011). The results of the study show the universal factors affecting retention across national boundaries included, perceived organizational support, and retention history.

Transition

Section 1 of this study contained information on strategies that some leaders may use to increase employee retention among IT employees in Norfolk, Virginia. The section began with the foundation of and background for the study related to the problem and purpose statements, nature of the study, research question, conceptual framework, operational definitions, assumptions, limitations, delimitations, and significance of the study. In Section 1, I discussed a review of the academic and professional literature that contained the conceptual framework. Herzberg's (1959) two factor theory, job satisfaction, provided the conceptual foundation for this study.

Section 2 includes the purpose statement, the role of the research, participants, research method and design, population and sampling, ethical research, data collection instrument, data collection technique, data analysis and reliability and validity. In Section

3, I provide the presentation of the findings, application to professional practice, the implications for social change, recommendations for action and future research, reflections and a conclusion to the study.

Section 2: The Project

In this study, I focused on leaders' lack of strategies to increase employee retention. In this section, I present the methodology used to investigate and interpret the following business problem: What strategies do leaders use to increase IT employee retention in Norfolk, Virginia? In Section 2, I address various topics, including the purpose statement, role of the researcher, participants, research method and design, population, sampling, data collection, organization and analysis, and reliability and validity of the study.

Purpose Statement

The purpose of this qualitative, exploratory single case study was to investigate strategies needed by business leaders to increase IT employee retention. Six leaders constituted the target population. I conducted interviews with leaders responsible for the retention of IT employees located in Norfolk, Virginia. This study contributes to social change by providing leaders with factors that encourage IT employees to remain in their jobs and possible strategies to retain these employees in the IT field. The business benefit of developing retention strategies is that organizational leaders are likely to realize increased profits.

Role of the Researcher

One of the main roles of the researcher in a qualitative study is to be the main data collection instrument. This role relates directly to the type of instrument used and the procedures outlined in the research design plan (Doody & Noonan, 2013). Another role is to ascertain the presence of bias and take appropriate steps to minimize all preconceptions that may potentially affect data collection and data analysis (Mealer & Jones, 2014). Burau and Anderson (2014), Covell, Sidani, and Ritchie (2012), and De Ceunynck, Kusumastuti, Hannes, Janssens, and Wets (2013) suggest the researcher use an interview protocol, sampling strategy, and triangulation in the study. My role in this study included (a) employing an interview protocol, (b) developing a sampling strategy, (c) communicating with potential participants, (d) providing and gathering the completed interviews from each participant, (e) analyzing the data and applying triangulation, and (f) formulating a conclusion from the analysis.

Researchers should follow the ethical guidance from the Belmont Report (Cugini, 2015; Lolis & Goldberg, 2015) to protect the rights of the participants. I followed the ethical principles from the Belmont Report. Lolis, and Goldberg (2015) noted that the Belmont Report includes a summary of ethical principles and guidelines that are useful for solving or avoiding problems that might surround the conduct of research involving human subjects. As the key research instrument, I reviewed the consent form and the interview protocol (Appendix D) with each participant to ensure that the participant understood the purpose of the interview completely. Participants had the right to withdraw via e-mail, text, phone, or written request to me at any time without penalty.

In addition, I adhered to the interview protocols by obtaining proper approval to conduct the interviews. I included a coding system to ensure anonymity and protect the identities of all participants. Alphanumeric identifiers, P1 through P6, were useful for tracking participants' information and maintaining anonymity. I will secure and store the collected data in a safe location for a minimum of 5 years before permanently deleting all materials by incineration. I hold no relationships with any of the participants. I analyze the research data and present the findings in Section 3.

Participants

Participants joined this study based on consent. According to Cox (2012) and Harper and Cole (2012), having consent is needed in a qualitative research study. I selected six participants based on the following eligibility criteria: (a) a minimum 5 years of managerial experience, (b) experience implementing employee retention strategies, and (c) currently or previously employed in an IT position in Norfolk, Virginia. Prior to starting the study, I obtained permission from the Walden University International Review Board (IRB) and obtained written permission from the military organization to gain access to conduct research.

The relationship between the researcher and the participants is critical to the success of a study of this nature (Kolb, 2012; Robinson, 2014; Yin, 2013). I obtained a list of potential participants from the human resources manager of the participating military organization. I then e-sent the potential participants an introductory e-mail (Appendix B). The introductory email included the purpose of the study, criteria for selection, and the benefits of the study. I gained access to the participants by phone, e-mails, and face-to-face contact. Participants received no compensation for participating in this study. Their identities will remain anonymous to ensure confidentiality (Barnham, 2012; Cairney & St Denny, 2015; Doody & Noonan, 2013).

This study included a coding system to ensure anonymity and protect the identities of all participants. Alphanumeric identifiers P1 through P6 were used to track participants' information and maintain anonymity (Lamb, 2013; Thomas, 2015). Participants had the right to withdraw from the study via e-mail, text, phone, and or written request to me at any time without penalty (Barnham, 2012; Cairney & St Denny, 2015; Doody & Noonan, 2013). All participants replied via e-mail to the invitation letter (see Appendix B) acknowledging their willingness to participate in the study prior to being interviewed (Green, 2013; Barratt, Ferris, & Lenton, 2014; Harvey, 2015). Data will remain stored on a password protected computer and in a fireproof safe for a minimum of 5 years and will then be destroyed by incineration.

Research Method and Design

This section presents the research method, its justification, and the research design for this study. In qualitative methods, the focus is on building a holistic understanding of complex processes or realities (Robinson, 2014; Rossetto, 2014). The research method and design chosen affect the study results and determine the conclusions drawn by the researcher through inferences about the study's research questions (Lampropoulou & Myers, 2013). In this study, I used the research question and business problem to explore strategies to increase IT employee retention that may have a lasting effect on organizational profitability.

Research Method

The two most common research methods are quantitative and qualitative (Codie, 2012). Based on the problem and purpose of this study, I chose the qualitative research method. The qualitative method was justifiable because I was able to build a holistic understanding of complex processes and realities that have no precise measurements or predetermined hypotheses (Boblin et al., 2013; Codie, 2012; Petty, Thomson, & Stew, 2012). The researcher uses the qualitative method to explore, describe, understand, translate, and decode emerging themes by contrasting, comparing, replicating, categorizing, and classifying the focus of the inquiry (Marshall & Rossman, 2016). According to Verner and Abdullah (2012), an exploratory qualitative research method focuses on open-ended questions that solicit extensive data and analysis while detailing complex issues through interaction with participants in their personal settings or a location of their choice where they feel most comfortable. A deeper, broader, and holistic understanding of how leaders can increase employee retention develops naturally as this qualitative study proceeds (Yin, 2014).

Researchers' Petty, Thomson, and Stew (2012) explained that a qualitative method is ideal for research that requires a real-world setting. Themes and patterns of behavior may lead to a set of shared meanings (Petty, Thomson, & Stew, 2012). Researchers must eliminate bias to maintain the sobriety of the findings (Houghton, Murphy, Shaw, & Casey, 2015). Because, by definition, findings developed in qualitative inquiries are not generalizable to other settings, researchers must exercise extreme caution when projecting their results toward other areas of society (Yin, 2013). A quantitative approach was not appropriate for this study because the focus of this study was on the perceptions of participants and not quantifying relationships (Vasquez, 2014). Mixed methodology was inappropriate for this study because the study objective does not include testing for contradictions in qualitative or quantitative data (Sparkes, 2014). The qualitative approach is most suitable for this proposed inquiry because it focuses on human experiences to acquire personal dialogue with those involved as directed by Bernard (2013); Burchett et al. (2013); Cahoon et al. (2012); and Da Mota Pedrosa et al. (2012). I ensured that findings from the qualitative inquiries were valid and reliable and concurrent with the triangulating of the interview data.

Research Design

I used an exploratory single case study design for this study because it allowed me to understand the specific phenomenon of how business leaders increase IT employee retention within the company. The case study design focused on decisions that contribute to real-life phenomenon where the boundary and its context were not evident (Ridder, 2012; Yin, 2012). This design allowed me to investigate, gather, analyze, and interpret data of the lived experiences of participants under study (Hayman, Wilkes & Jackson, 2012; Tsang, 2012).

Other strategies of inquiries associated with the qualitative research methodology, such as ethnographic, grounded theory, and phenomenology (Marshall & Rossman, 2016), received consideration but were not appropriate for the study. An ethnographic inquiry involves an attempt to explain or understand a culture (Lambert, Glacken, & McCarron, 2013). The ethnographer is most interested in the common patterns that develop as a group interacts over time (Murthy, 2013). Grounded theory forms propositions or hypotheses (Kolb, 2012) while a phenomenological design seeks to describe rather than explain, free from hypotheses or preconceptions (Moustakas, 2004; Graebner, Martin, & Roundy, 2012).

According to Yin (2014), case studies may be exploratory, descriptive, or explanatory or some combination of two or more. Qualitative case study generally involves focusing on a single experience or multiple occurrences (Fusch & Ness, 2015; Granot, Brashear, & Motta, 2012; Graebner et al., 2012; Haahr, Norlyk, & Hall, 2013). In this study, I used a qualitative, exploratory single case study and proceeded with data collection by interviewing one participant at a time, recording detailed field notes, and repeating this approach until the point of data saturation at which no new information or themes occurred and the study could be replicated. As suggested by Burau and Anderson (2014), the design for the study could capitalize on the triangulation of primary and secondary data, aligning with the research questions and exploring the phenomenon consistent with the problem statement and research question (Baxter & Jack, 2008; Wilson, 2014; Yin, 2012). The research design allowed me to seek strategies from six leaders on IT employee retention that may lead to the development of IT employer and employee best practices along with a reduction of profit losses to IT business owners.

Population and Sampling

The target population for this research was six leaders in a military organization in Norfolk, Virginia. Qualitative researchers use the purposive criterion sampling technique to set the criteria for participants who have the appropriate experience and qualification in regard to the research topic (Trotter, 2012; Cronin, 2014). I used a purposive sampling to target a population that met a certain criterion. According to Doody and Noonan (2013), Kolb (2012), Robinson (2014) and Yin (2014), purposive sampling is the process of recruiting relatively small numbers of participants in a qualitative study. A purposive sampling aids in capturing rich data in support of the research conclusions, resulting in a maximized representation of participants (Barratt et al., 2014; Frels & Onwuegbuzie, 2013; MacBeth et al., 2014). I selected a sample of successful leaders who met the following criteria: (a) a minimum 5 years of managerial experience, (b) experience implementing employee retention strategies, and (c) currently or previously employed in an IT position in Norfolk, Virginia.

As noted by Robinson (2014), sampling and data collection are critical to determining the quality of a study. The purpose for selecting six participants was to ensure there were sufficient data to conduct the study. Moustakas (1994) concurred by stating that the researcher should interview a small number of participants repeatedly to obtain a deeper understanding of the issue. The technique to capture the data from the IT leaders was a homogenous purposive sampling technique. A homogenous purposive sampling focuses on participants who share similar traits or specific characteristics (i.e., age, culture, and job or life experiences) that help to support the research problem and research question (Barratt et al., 2014; Brown et al., 2013; Dworkin, 2012). I interviewed six leaders and conducted member checking to obtain data saturation. Clausen (2012); Covell et al. (2012); Irvine, Drew, and Sainsbury (2013); Walker (2012); and Yin (2012) explained that researchers should use member checking with the participants reviewing transcripts of their statements for accuracy, credibility and validity. I focused this research on leaders who possess the knowledge and information that were relevant to the purpose of this study.

Ethical Research

In this study, data collection commenced after Walden University Institutional Review Board (IRB) approval 08-18-16-0016905 prior to collecting data. After obtaining approval from the IRB, I selected the site, participants, and requested permission from the site to conduct the study. I followed ethical standards as set forth by Walden University, including the code of conduct and ethical guidance in the Belmont Report (Cugini, 2015). According to Peredaryenko and Krauss (2013), qualitative inquiry and research ethics are often cross-purposes. The researcher must not infringe upon the participants' rights and should understand the ethical considerations concerning the protection of human research participants (Dewey & Zheng, 2013; Klitzman, 2013; Shah, 2013).

I have earned certification from the National Institutes of Health (NIH) demonstrating proficiency in this area (Appendix G). Appendix C contains the letter of invitation for study participants. Appendix B contains the letter of cooperation. The consent form (not included) contained detailed information pertaining to the study. Participants could opt to withdraw from the study and have their data destroyed upon request. Participants receive no incentive to participate in the study. I used a coding system to ensure anonymity and protect the identities of all participants. Alphanumeric identifiers, P1 through P6 were used to track participants' information and maintaining anonymity (Jacob & Furgerson, 2012; Rubin & Rubin, 2012; Thomas, 2015). Participants had the right to voluntarily participate in and withdraw from the study at any time with or without a reason by notifying me via email, text, phone, in writing, or in person (Doody

& Noonan, 2013; Unluer, 2012). The collected data will remain stored on a password computer and in a fireproof safe for a minimum of 5-years and incinerated thereafter.

Data Collection Instruments

I acted as the primary data collection instrument, data collector, facilitator, and interviewer. I used two sources to support data collection: semistructured interviews, and organizational documentation (Covell et al., 2012; Englander, 2012; Mazaheri et al., 2013; Onwuegbuzie & Byers, 2014). I gathered data of six leaders' perceptions and lived experiences on retention strategies to retain their IT employees. I asked open-ended questions, the participants answered the interview. Data saturation occurred when there was no new additional information collected and the themes were similar (Coenen et al., 2012; Mikecz, 2012; Platt & Skowron, 2013). Validity and reliability can occur through member checking and organization of the research data (Chronister, Marsiglio, Linville, & Lantrip, 2014; Street & Ward, 2012). I used member checking to assure the interpretation was correct and that participant experiences accurately portray data given to contribute to credibility, reliability, and validity.

Data Collection Technique

Prior to starting the study and after IRB approval, I sent an invitation email to each participant, which included a brief background on the purpose of the study (See Appendix C). Upon receipt of the list from the human resource manager an invitation letter was sent to potential participate in the study through e-mail. The participants who agreed to participate in the study subsequently received the informed consent form, presented in person confirming their previous reply to the invitation email with "I agree" to participate in the study to confirm their willingness to participate in the study. Upon approval of the consent form, the participants acknowledged the confidentiality and protection of their rights in the study (Covell, Sidani & Ritchie, 2012).

After I gathered the six qualified, consenting participants, I selected a time that was most suitable for conducting the interview with each participant and scheduled a 30-minute interview session. Onwugbuzie and Byers (2014) explain that an ethical researcher ensures the maintenance of appropriate conduct during a research study. I remained professional with the participants throughout the data collection process. I used two methods to collect data. First, I conducted a face-to-face interview with the participants, and took notes. Second, I emailed a copy of the interview questions to the participants prior to conducting the interview. Figure 1 depicts the data collection technique for this study.

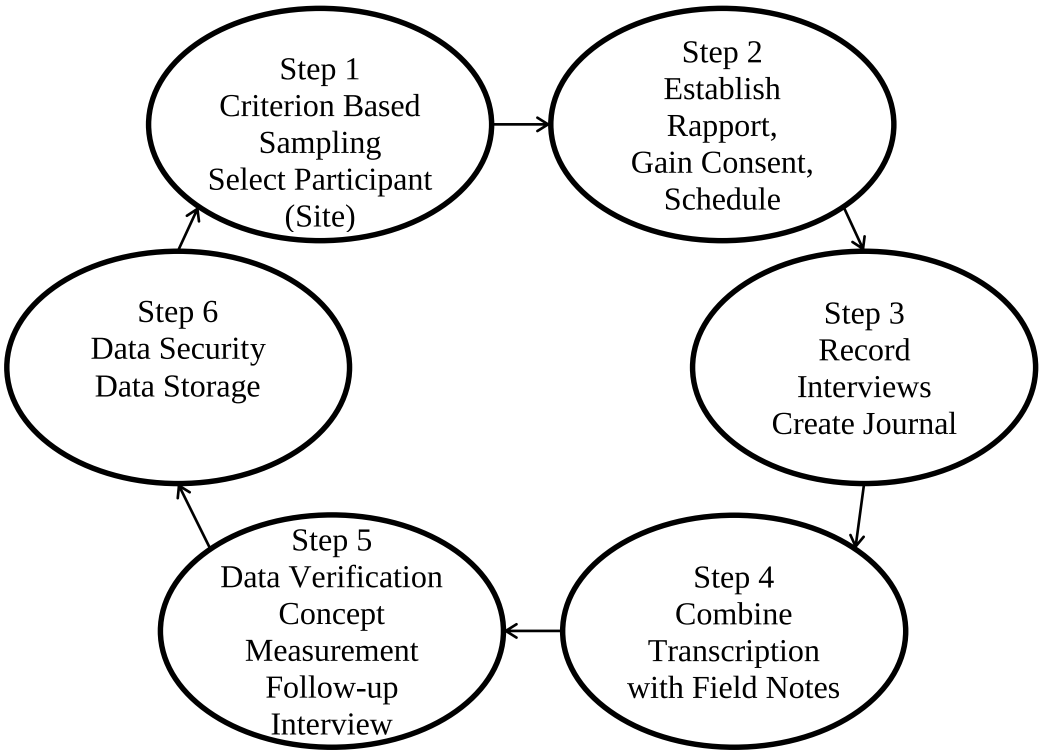

Figure 1. Data collection technique. From *Barriers to Microenterprise Initialization, Growth, and Success* (p. 82), by M. T. Bakari. Copyright 2014 by M. T. Bakari. Reprinted with permission.

Third, I received email response back from all the participants. I emailed a copy of the interview questions to the participants for review prior to conducting the interview. I interviewed six leaders and conducted member checking to obtain data saturation. Data saturation occurred when there were no new additional information and or similar themes (Coenen et al., 2013). Chronister, Marsiglio, Linville, and Lantrip (2014), noted member checking was an efficient way to establish credibility in a qualitative research study. I ensured that the participants in the study were able to review and validate their transcriptions. I ensured that the participants had a clear understanding of all aspects of the study.

Data Organization Technique

According to (Yin, 2014) organizing the data into themes helps to gain an understanding of the data and patterns. I used a series of repeating steps to preserve the truthfulness and accuracy of the data organization technique. Hoque, Covaleski, and Gooneratine (2013) noted having data organized into clusters of information allows the researcher to have an audit trail. I used a pen and journal to document the interviews with the participant. According to Everett (2013) journals are valid methods of accessing rich qualitative data which researchers use as a method of data collection. I used NVivo software, journals, and spreadsheets to store and organize the data. Hoque, Covaleski, and Gooneratne (2013); and Horne and Horgan (2012); Soter, Connors, and Rudge (2012); and Street and Ward (2012) noted that validity and reliability of research findings might occur through the organization of the data. I transcribed the interview data into a series of individual computer files, one for each participant. Block and Erskine, (2012) and Anyan (2013) noted that the researcher should allow adequate time to administer, complete, and code the interview data. According to Yin (2014), the thematic analysis enables the identification of emerging themes for data interpretation. The analytical process consisted of placing an alphanumeric code of P1 through P6 for the six participants to maintain confidentiality and privacy. At the end of the 5-year storage period delete all data and incinerate the storage device.

Data Analysis

The purpose of this qualitative, exploratory single case study was to investigate strategies that leaders use to increase IT employee retention. The overarching research question of this study was: What strategies do leaders use to increase IT employee retention in Norfolk, Virginia?

Participants answered the following questions:

1. What employee motivational factors do you use to retain IT employees in your company?
2. What strategies have you used to retain employees in the IT field?
3. Which of these strategies have you implemented to retain employees in the company?
4. Which of these strategies help to improve retention?
5. Which of these strategies did not help to improve retention?
6. Why did these strategies not improve retention?
7. What else would you like to add that might be applicable and that we did not cover?

Researchers can use data analysis programs to add rigor to the qualitative research process (Brennan & Cotgrave, 2014; Cope, 2014; Moll, 2012). The appropriate data analysis process for this case study was methodological triangulation. Baxter and Jacks (2008) and Heale and Forbes (2013) noted that triangulation can occur through the use of multiple data sources, multiple methods of data collection includes interviews, observations, notes and journaling. Burau and Anderson (2014) noted that triangulation of data also includes analysis of primary data from the interview questions, secondary data collection from company brochures, pamphlets, and website. Researchers, (Houghton, Casey, Shaw, & Murphy, 2013; Ivy, 2012; Yin, 2014) agreed that in the analysis phase researchers should include refining the codes, collapsing, or elimination of codes when appropriate. Woods, Paulus, Atkins and Macklin (2015) and Codie (2012) stated that researchers should generate and refine codes continuously until no new unique codes in the proposed study are identifiable.

I continued the process of generating and refining codes until no new unique codes were identified. Coding of transcripts continued until data saturation therefore, I explored any discrepancies between codes until saturation. From Yin (2014), researcher uses coding to discover the themes contain within transcripts and includes data to reach saturation to ensure reliability, validity, and credibility. I used alphanumeric identifiers that distinctively identified six participants by a letter and a number. The alphanumeric identifiers were “P” for participant and the number was 1 through 6 to identify key themes emerged from the interview process.

I transcribed the interviews into a Microsoft word document and analyzed the emergent themes using the NVivo 10 software. NVivo qualitative software for data analysis expedites coding and includes the categorization of the collected data during the analysis stage (Hoque, Covaleski, & Gooneratine, 2013; Horne & Horgan, 2012; Soter, Connors, & Rudge, 2012). With a coding manual, I compile and organize all transcripts using NVivo qualitative data analysis software. The value of using NVivo software is the ability to ensure coding is consistent throughout the analytical process (Burghardt et al., 2012; Cook, 2012; Petty, Thomson, & Stew, 2012). I placed data in different categories, matching categories with sources of evidence and creating flowcharts. The step for using NVivo software includes placing data in different categories, matching categories with sources of evidence and creating flowcharts (Wynn & Williams, 2012; Yin, 2014). Other steps included tabulating the frequency of certain words or thoughts, exploring relationships, and placing data in other relevant classification. NVivo software was appropriate for this study to assist with the coding, referencing, counting, sorting, and displaying of the data from the participants as described by Bekhet and Zauszniewski (2012); Burau and Anderson (2014); Gorissen, van Bruggen, and Jochems (2013).

I focused on the key themes emerged from the interview transcript for consistency. An extrapolation of the key themes addressed the research question to achieve the main purpose of the study (Xu & Recker, 2012; Yin, 2014). I correlated the key themes emerged from the interviews with the literature (including new studies published since writing the proposal) and the conceptual framework. The conceptual framework of this study was Herzberg's (1959) two factor theory also known as the motivation-hygiene theory. Data analysis helped correlate the two factor theory posited by Herzberg and include: (a) work life balance, (b) incentives, (c) quality of life, (d) telework, (e) leadership, and (f) inclusion, and (g) staying abreast of new technology. The data analysis was instrumental with the results from this study correlating the literature and conceptual framework through critical and repeated exploration and emergent themes.

Reliability and Validity

Establishing consistency was necessary in the research study. Qualitative reliability is a process researchers use to check the accuracy of the information (Cope, 2014). Implementing and creating reliability and validity strategies are important within any research study to ensure the results are valid and trustworthy (Wahyuni, 2012). Credibility, dependability, transferability, and conformability of a study establish a sense of trustworthiness (Cope, 2014; Houghton et al., 2013; Street & Ward, 2012). If the researcher thinks of something as being reliable, the item is dependable and trustworthy. Research reliability refers to the consistency of the measurement (Cook, 2012).

Reliability

Reliability procedures included checking transcripts for mistakes making sure there are no changes in codes, and cross checking (Aust, Diedenhofen, Ulrich, & Musch, 2013; Burchett, Mayhew, Lavis, & Dobrow, 2013; Malhotra, Mukhopadhyay, Xiaoyan, & Dash, 2012). I checked and reviewed the data to ensure the instrument and processes for collecting, organizing, and analyzing data were portrayed accurately. Questions answered the same way establish a measure of reliability (Malhotra, Mukhopadhyay, Xiaoyan, & Dash, 2012). Testing the work of one researcher is necessary to establish consistency. Data collection for this study involved offering open-ended interview questions. The number of interviews conducted determined the saturation point (Cairney & St Denny, 2015; Marshall, Cardon, Poddar, & Fontenot, 2013; Walker, 2012). According to Fusch and Ness (2015), data saturation occurs when no new data is achieved and substantiated by clear evidence of its occurrence. The interview questions were securely stored in a password-protected computer, backed up by an encrypted external hard drive. The expectation in qualitative research is that a researcher must verify the dependability in the research process and reporting of findings (Cook, 2012). Establishing dependability includes triangulating the different data sources, member checking to establish accuracy, and recording rich descriptions to explain research findings (Bekhet & Zauszniewski, 2012; Harper & Cole, 2012; Yin, 2014). To establish dependability, a researcher must check the accuracy of the results to indicate the approach was consistent across researchers and different context or projects.

Researchers validate their findings by emphasizing trustworthiness and documenting accuracy (Rennie, 2012). Each participant remained anonymous by coding each response with a number. Performing these steps enhance the reliability and value of the data (Rowley, 2012; Street & Ward, 2012; Yin 2014). The security and storage of the data collected helped to ensure authenticity. As a requirement for the doctoral study, store the data from the participants on an encrypted USB drive in a safety deposit box for 5 years, with access restricted only to me (Boblin et al., 2013; Cronin, 2014; Wahyuni, 2012). After the 5-year storage period, destroy all materials by incineration; which complies with the consent form. I provided the participant with my contact information. Participants may also call the Walden University representative to discuss their rights as participants and the consent form contains a Walden University's IRB approval number and expiration date. I ensured reliability in this study by documenting the sequence of data process and analysis, member checking, and triangulation (Harper & Cole, 2012).

Validity

Researchers use internal and external validity strategies to enhance the accuracy of results and to convince readers of their precision. In case study research, the value of internal validity was to ensure reality and the extent to which it matched research findings and was consistent with other occurrences and interpretations (Aust, Diedenhofen, Ulrich, & Musch, 2013; Street & Ward, 2012; Yin, 2013). External validity exists when there are opportunities for the transferability of research findings (Lincoln & Guba, 1985). Qualitative validity includes credibility, transferability, conformability, and data saturation (Marshall & Rossman, 2016).

In order to establish research credibility, the findings must take into account all of the complexities in the data and explore patterns not explained (Harper & Cole, 2012; Marshall & Rossman, 2016; Street & Ward, 2012). I used member checking to address credibility by providing participants with the data interpretations by e-mail. I asked participants to provide feedback about the accuracy of the research findings. Member checking provided support to participants regarding the validation of their experiences (Harper & Cole, 2012).

Establishing transferability, and conformability, included triangulating the different data sources, member checking to establish accuracy, and recording rich descriptions to explain research findings (Bekhet & Zauszniewski, 2012; Harper & Cole, 2012; Wilson, 2014; Yin, 2014). To establish transferability, a researcher must check the accuracy of the results to ensure the approach is consistent across researchers and different context or projects. Researchers can use triangulation to demonstrate the validity in research (Cope, 2014; Moll, 2012). Methodological triangulation involves collecting data from multiple sources to establish validity in case studies (Baxter & Jacks, 2008; Black, Palomobaro, & Dole, 2013; Gorissen, van Bruggen & Jochems, 2013). Denzin (2012) noted there are four types of triangulation (a) data, (b) investigator, (c) theoretical, and (d) methodological. Hoque, Covaleski, and Gooneratine (2015) described methodological triangulation as using more than one method for gathering data. I used methodological triangulation in this case study. Researchers validate their findings by emphasizing trustworthiness and documenting accuracy (Rennie, 2012).

Confirmability was used to demonstrate that the research data represented the participants' response and not the researcher view (Cope, 2014). According to Houghton et al. (2013), researchers link confirmability to dependability in referring to the neutrality and accuracy of the data. Data saturation was imperative to confirming credibility. Data saturation was achieved when the research data became repetitive and reveals no new data during the coding process for any categories (Chikweche & Fletcher, 2012; Coenen, Stamm, Stucki, & Cieza, 2012; Habersack & Luschin, 2013; Vogl, 2013). I achieved data saturation by integrating purposeful sampling and continuous comparative methods and approaches into the research study process. I also established the credibility and trustworthiness of my study by implementing the appropriate steps to maintain the highest level of academic research standards.

I adhered to the strict Walden IRB research guidelines to mitigate bias and the (U.S. Department of Health and Human Services, 1979). Black, Palomobaro, and Dole (2013), Peredaryenko and Krauss (2013), and Rennie (2012) also noted that reflexivity is the practice of making personal biases and roles known. I used reflexivity in my qualitative case study. Elo et al. (2014), Mukeredzi (2012), Qu and Dumay (2011), and Yin (2014) agreed that both trustworthiness and document accuracy contribute to the concept of credibility in the research findings. Qu and Dumay (2011) noted researchers who validate their findings they emphasize trustworthiness and document accuracy. The techniques for establishing conformability included audit trail, triangulation, and reflexivity (Burau & Andersen, 2014; Denzin, 2012; Gorissen, van Bruggen, & Jochems, 2013). At the end of the 5-year storage period, delete all data and incinerate the storage device.

Transition and Summary

Section 1 included an introduction to the problem about leaders' lack of strategies to increase employee retention. Section 2 comprised of the methodologies and strategies along with the purpose statement, the role of the researcher, the participants, a description of the research method and design, population and sampling, reliability and validity, data instruments, data collection and organization, and data analysis. The intent was to use qualitative NVivo software for gathering, storing, and analyzing the data, which made the process of data analysis easier than by hand calculations. Understanding the use of the tools available, as well as the protocol involved in data collection, storage, and analysis, was vital to ensuring validity, giving credibility to the study, and expediting the analysis. After Walden IRB approval and posting the study, data collection and analysis began. Section 3 included the findings, application to professional practices, implications to social change, recommendations for action, recommendations for further study, and reflections and a conclusion to the study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative, exploratory single case study was to investigate the strategies that business leaders use to increase IT employee retention. The data came from interviews with leaders and company documentation at one military organization in Norfolk, Virginia. The findings showed strategies that business leaders used to increase IT employee retention and improve organizational profitability. Section 3 includes presentation of the findings, application to professional practice, implications for social change, and recommendations for action. This section ends with recommendations for further studies, reflections on my experience, and a summary of the study conclusions.

Presentation of the Findings

The overarching research question of this study was: What strategies do leaders use to increase IT employee retention? The interviewees were coded as P1 thru P6. Data analysis of the interviews and company documentation indicated seven emerging major themes for retaining IT employees. These themes include: (a) work life balance, (b) telework, (c) incentives, (d) quality of life, (e) leadership, (f) inclusion, and (g) staying abreast of new technology.

Theme 1: Work Life Balance

According to Viswanathan and Kumaran (2013) and Hussain and Saleem (2014), work life balance refers to being able to maintain satisfying work and family environments without compromising on the deliverables of either role. Viswanathan and Kumaran noted that leaders have discovered that if they manage work-life employee conflicts appropriately, they retain more of their talented workers. Ratna and Chawla (2012) and Wang et al., (2012) noted that employees intentionally stay with companies that provide a work-life balance.

Studies show employees want a flexible schedule. The flexible work schedules are one of the top two strategies that help retention (Ahmad et al., 2015; Joseph, Gautam, & Bharathi, 2015; Karahanna, Xu, & Zhang, 2015). In response to the overarching research question: What strategies do leaders use to retain employees in the IT field? All six participants mentioned work-life balance, echoing the research. The theme of work-life balance emerged from interview questions 5 and 6.

Mid-Atlantic Regional Maintenance Center (MARMC) has an alternate work schedule, or flexible schedule, which is consistent with the responses from the participants. P2 stated employees, especially those with small children, were appreciative of the flexible schedule. P1 stated IT had not had a high turnover in the past five years, which is a good sign that what they were doing was working. P5 stated, for the 20-40 age groups, flexible work schedules seemed to be important. This group seemed to want more opportunities for variety and the ability to fit work around their life schedule to the maximum extent possible. Kataria et al. (2012) recognized that job flexibility, along with other (intrinsic) hygiene factors is a critical incentive for all employees.

Theme 2: Telework

Beyond offering a flexible work schedule, Shaukat, Ashraf, and Ghafoor (2015) noted telework as a work flexibility arrangement where the employees perform the duties and responsibilities of their position from an approved worksite other than the location from which the employee would otherwise work. The federal government has enacted laws to promote telework in federal agencies. The telework policies, procedures, and instructions are readily available for employees and can be located on the organization's Intranet as well as in the human resources office. MARMC has implemented a telework program for all of their employees. It is important that the telework program fit the organization as well as the individual employee and the particular job at hand. Telework emerged from the interview questions 2, 3, and 4.

P4 noted that within the past year and a half, MARMC has implemented the telework program, based on the federal policies, to allow employees to work from an approved worksite. Most employees in the IT division are taking advantage of telework. According to Herzberg (1959), hygiene factors such as characteristics associated with company policy can contribute to employee dissatisfaction in the workplace. In this case study, the presence of telework policy within MARMC positively influences employee retention.

Theme 3: Incentives

The government offers incentives to retain employees. Ratna and Chawla (2012) and Wang, Yang and Wang (2012) noted that employees intentionally stay with companies that provide competitive pay and bonuses, job security, training, as well as retirement arrangements on which they can depend. Pokorny (2013) agrees that organizations are better able to retain employees who are satisfied with their work, and whom they reward and recognize well. The literature review and conceptual framework support the theme of incentives.

Incentives emerged from interview questions 2, 3, 4, and 5. P6 agreed that strategy used to retain IT personnel is rewards, both monetary and nonmonetary, and recognition. P4 stated that companies should make it clear what the incentives are, and they should reward fairly so employees see the benefits of their efforts. P1, P4, P5, and P6 used annual job performance bonuses and on-the-spot awards such as monetary, time off, and merchandise from the command store. The term *recognition* refers to authentic and genuine appreciation of an employee's accomplishments (Aisha et al., 2013; Sinha & Sinha, 2012). The command uses letters of appreciation to recognize their employees' accomplishments. P3 said, "I always give credit to my employees for doing a good job and recognize them for their efforts." MARMC's robust award and recognition policy are posted on the organization's Intranet.

According to P4, IT professionals are not always motivated by money alone. P1 stated training opportunities and career advancement are incentives as well. P3 stated cross training is used to provide employees the greater overall knowledge of the IT division. This approach breaks up the day to day monotony and provides thought provoking challenges. It also makes a better-rounded employee competitive for future promotions.

P5's response is consistent with the findings from Coetzee and Stoltz (2015), who explained that a successful retention approach includes implementing a highly visible career planning strategy within the organization. However, career advancement in MARMC is limited due to the government structure of the number of billets each department is designated. It is also dependent on others vacating positions in order for employees to move up.

Federal employees have company benefits such as student loan repayment program. P1 said the student loan repayment program has also been implemented. Additionally, federal employees have one of the best health care programs available. P2 and P5 stated company benefits, such as medical, dental, and retirement, were used to improve retention. P5 also stated that IT employees have an outstanding vacation and paid sick leave plan, with no limit to the number of sick leave days that may be accumulated. P5 suggested that for older employees (40+), the health benefits and vacation/sick leave strategies seemed to be very important and helped to retain employees in that age group.

Another incentive is job security in the government. In the private industry, it is not uncommon for companies to lay off, down-size or simply go out of business as the economy and other factors dictate. P5 said it is a very rare event that a federal job will be abolished and even when it is, the employee will receive priority placement in order to find another job. P5 suggested that for older employees (40+), job stability seemed to be very important, and it helped to retain that age group.

Aguinis, Gottfredson, and Joo (2013) stated that among all types of reward, monetary pay is one of the most important and significant intrinsic factors affecting employee retention.

In the list of Herzberg intrinsic factors, advancement and recognition could influence satisfaction. Herzberg found that when leaders recognize an employee's accomplishments, the employee might be more effective. Verbal praise has the ability to enhance company loyalty (Aisha et al., 2013; Sinha & Sinha, 2012). In the list of extrinsic factors, company policies and job security could influence employee job dissatisfaction.

Theme 4: Quality of Life

Valenti (2014) stated that employees want more from their jobs than just pay and rewards. Since there is only a finite amount of money to go around, most people will gravitate to employment that pays more to increase their quality of life. Ratna and Chawla (2012) and Wang, Yang, and Wang (2012) noted that employees intentionally stay with companies that provide a competitive pay and bonuses on which they can depend. The body of the literature supported this theme.

MARMC policy document entitled MARMC Strategic Business Plan corroborated that the organization considers “quality of life” to be their number one goal for taking care of their employees. The participants’ responses are in line with the goal of the command to have a better quality of work-life to retain their employees.

Quality of life emerged from interview questions 1, 2, 3, and 4. P3 said quality of life typically plays a big part in an individual’s personal life and that more money usually translates to better quality of life. P4 used routine pay raises in the form of step increases within a particular pay grade or advancement to higher pay grades, depending on the end-state pay grade into which the employee is hired.

In the list of Herzberg intrinsic factors, advancement was identified as a possible influence of job satisfaction. In the list of intrinsic factors, salary was also identified as a possible influence of job dissatisfaction. These factors could have an impact on IT employee retention.

Theme 5: Leadership

Mahal (2012) found leadership style could have a positive effect on organizational commitment. Mardanov, Heischmidt, and Henson (2014) stressed that a leader's positive attitude improves the employee attitudes toward work, their leader, and the organization. Ratna and Chawla (2012) and Wang, Yang, and Wang. (2012) noted that employees intentionally stay with companies that provide business and leadership skills. The body of the literature primarily supported this theme.

Leadership emerged from interview questions 3, 4, and 7. MARMC mentoring program corroborates the aforementioned evidence that leadership is concerned with growth and development of their employees by providing both internal and external leadership opportunities. The employees really feel that this makes a difference. P5 concurred, demonstrating the idea by assigning mentors to develop the junior employees for more senior positions.

P3 stated that one strategy that was used was working to an individual's strengths while at the same time mentoring them on their weaknesses. P4 noted the IT industry is changing so quickly that it is hard to retain good employees. P1, P3, and P6 added there were a couple of strategies regarding leadership that are used, and one was being a fair but a caring leader to employees. P4 noted the importance of ensuring that everyone was receiving fair and equitable treatment. P3 and P4 stated that honest, frequent two-way communication between leaders and employees, including constructive discussion of workplace issues, were needed.

P3 stated employees feel that they can come to them when they are dealing with personal issues at home. They tell them that “family comes first” is important. If they are happy at home, then that carries over into the work they produce. This is not to say that they can take advantage of the situation, but when leadership is limited in what can be offered to employees because of government resource limitations, this seems to make a difference.

P3 also added, “I have found that employees who enjoy what they do at work I am able to retain them. I try to assign them a primary task that works to their strengths and that they enjoy.” P1 and P2 stated showing employees that their leadership is trustworthy and reliable also provides guidance to employees. P1, P3, and P5 asserted that one of the important factors in effective retention was for the leaders to know their employees and to ensure the correct strategies were being employed. Providing employees with periodic reports on the effect their projects are having on the command allows them to know their work makes a difference.

Herzberg et al. considered factors such as growth, supervision, and employee-supervisor relationship important. According to Herzberg’s theory, the presence of extrinsic factors, such as growth, could enhance employee satisfaction. The presence of intrinsic factors, such as supervision and relationship with supervisor and peers, could reduce employee dissatisfaction. These factors could influence organizational commitment which could have an impact on IT employee retention.

Theme 6: Inclusion

According to Shaukat et al. (2015) and Tong et al. (2015) companies encourage emerging leaders to engage in responsible activities that allow them to share ideas and opinions, as well as boost their involvement and captures innovative ideas. Supanti, et al. (2015) suggests employee involvement in decision-making helps create a sense of belonging among the employees, build a good working environment and positive employer-employee relationships. Thirulogasundaram and Kumar (2012) indicated that effective communications concerning improving employee identification with their organization builds openness and trust. MARMC has a robust equal opportunity program which is in alignment with the policies and procedures from the Office of Personnel Management. The literature review supported this theme.

Inclusion emerged from the interview questions 2, 3, 5, 6, and 7. P2 stated once an employee feels no longer relevant, they lose interest in the work and their jobs. P1 and P2 noted that IT employees, who feel like they contributed to a team effort, their ideas are valued and appreciated, and they were treated with respect, go further than with monetary compensation.

P4 noted empowering employees to make them feel part of the big picture as well as the team which is a key motivating factor for building team relationships. Additionally, P4 suggested, asking employees for their input on such issues as lowering stress and heightening workloads while successfully completing the mission is important.

P2 also recommended encouraging IT employees to be proactive in having an input in determining their future as well as advocating for their customer's needs.

According to Herzberg two factor theory, jobs that include responsibilities could influence job satisfaction. In addition, the presence of relationships with supervisors and peers, such as in team setting could lessen job dissatisfaction.

Theme 7: Staying Abreast of New Technology

Yoon et al. (2015) asserted that some IT employees tend to work on cutting edge technology programs that require the IT employees to be knowledgeable about newer technology, and keep their certifications active. Similarly, Connell, Gough, McDonnell, and Burgess (2014) posited that IT employees must continually learn new skills over their entire career in order to adapt to new technological development and changing business requirements. Ratna and Chawla (2012) and Wang, Yang and Wang (2012) noted that employees intentionally stay with companies that provide training in new technology, on which they can depend. Das and Baruah (2013) found that retaining skilled employees plays an important role in any organization because employees' skills are central to the company's ability to be competitive. The literature review also supported this theme.

The theme staying abreast of new technology emerged from interview questions 1, 4, and 7. P4 stated staying abreast of the latest technology could ensure and maintain a competitive advantage. P2, P4, and P5 noted that there is a great opportunity in the digital age for those to embrace it. According to P5, the advent of social media has excited many different generations of people. The younger generations are particular comfortable with it and enjoy it. For the younger generations, taking responsibility to stay ahead of the new IT trends is where they want to be, and it keeps them enthused. P5 also mentioned that the older generations don't embrace it freely but will have to, if they wish to remain relevant, stay employed, and advance, as they understand where great opportunity lies.

In addition, P1, P2, P4, and P5 suggested that staying abreast of new technology was an effective strategy for retaining IT employees. While fundamental, staying abreast of new technology was an important and common theme across most of the participants P1, P3, and P5 asserted that leaders should send employees to IT conferences and seminars. According to P5, the work itself requires certain certifications and standards that IT employees must have before they are even able to work on some projects.

According to Herzberg two-factor theory, the presence of intrinsic factors such as responsibility, advancement, and characteristics of the work itself could influence job satisfaction and leading to IT retention.

The conceptual framework stemmed from Herzberg's (1959) two factor theory. Within this study, I reviewed the framework as related to the study findings in order to gain an understanding of the strategies leaders may use to improve IT employee retention. The company documentation and participant's responses supported Herzberg's two factor theory. Herzberg's findings are consistent with other research study. Furthermore, this study constituted an addition to the body of knowledge about strategies business leaders use to improve retention of IT employees.

Applications to Professional Practice

The results of this study were significant to professional business practices in several ways. The findings of this study revealed business leaders’ view within one military organization about creating innovative retention strategies and enacting positive organizational changes to reduce IT employee turnover. Business leaders could use the findings to establish ongoing and continuing training to update their employee skills and expertise. Business leaders may also use this study as a basis for increasing the retention rate in other areas. Publishing the results of this study could provide business leaders information on employee motivation and productivity.

Implications for Social Change

The findings contribute to social change by increasing employee retention, which could enable leaders to save money on recruitment and training, while encouraging a stable experienced workforce. The study data supported the conclusion that business leaders who have increased employee retention rates and maximized organizational profitability can motivate their IT employees through better human resource management strategies (Knight & Cross, 2012; Muller et al., 2012), which could include monetary and non-monetary incentives. Over time, these changes in management practices are translated into positive social changes that could enhance the quality of life for families and communities (Muller et al., 2012).

Data analysis indicated that as organizations become profitable through better employee retention strategies, they might invest in employee training, competitive compensation, improved working conditions, and benefits such as health insurance, bonuses, and family support. Tuwei, Matelong, Boit, and Tallam (2013) stated that profitable organizations have a higher likelihood of solving fundamental social problems. Furthermore, this study constituted an addition to the body of knowledge about the strategies leaders use for developing, implementing and providing stable employment opportunities, and contributing to the welfare of the community through investment in the development of healthcare and training programs.

Recommendations for Action

In conducting this research, I found that traditional retention strategies are ineffective at retaining IT employees in today’s competitive environment. I recommend business leaders develop retention strategies that can improve IT retention. Business leaders that develop retention strategies can have a positive effect on the employees and the organization.

As the findings revealed, work life balance was the most common precursor to turnover among IT employees. I recommend that business leaders seek strategies that specially focus on IT employees’ work life balances to increase retention rates. Gayathri, Sivaraman, and Kamalambal (2012) expressed those CIOs who are unable to offer long-term job stability should offer flexible work schedules that balance work and family and encourage IT employees and managers to remain in IT field.

Ahmad, Shafique, Ahmed, Saleem, and Imam (2015) expressed another main reason employees and managers leave their jobs is to take jobs that allow them to reduce their commute and work at home. I recommend business leaders enact policies that allow opportunities for employees to utilize telework increase productivity. Business leaders have a vested interest in helping to enact where appropriate, human resources policies that maximize productivity, while addressing IT employee retention.

Leadership style could have a positive effect on organizational commitment (Mahal, 2012). I recommend that business leaders become more intentional about developing interpersonal skills. A focus on effective communication skills and inclusion are key elements in this development process. Business leaders can enhance employee-leader relationships by improving communication. In addition, including employees in the decision making process could show employees that leadership is concerned and values their input, which results from effective interpersonal skills.

Employees intentionally stay with companies that provide a competitive pay (Ratna & Chawla, 2012: Wang et al., 2012) to increase their quality of life. I recommend that business leaders ensure employees are adequately compensated for the work they do. Equity in pay increases motivation and performance.

In general, this study is beneficial to business leaders and employees. I will disseminate the results of this study to the research participants via email and to business leader via effective and appropriate platforms such as my place of employment, lectures, conferences, business journals, and training seminars.

Recommendations for Further Research

The focus of this study was to explore strategies that leaders use to increase IT employee retention in Norfolk, Virginia. In conducting this study, I found the majority of the research done on retention of IT employees consists of quantitative studies, in which researchers examined the systematic review on IT employee turnover (Ghapanchi et al., 2013). However, fewer researchers have conducted qualitative studies on strategies to retain IT employees. I recommend that researchers conduct more qualitative studies to fill this gap. In addition, researchers may also use this study as a basis for further exploration of alternative ways of increasing the retention rate for employees in other areas such as recruiting and hiring.

The emerging themes of staying abreast with the latest technology to ensure and maintain a competitive advantage and of improving organizational practices through work life balance require further exploration. I recommend future studies of business leaders strategies on retention of IT employees for further support of the findings. As a result of the sample size, researchers may not be inclined to accept these study results and conclusions as widely applicable to the retention of IT employees in the workforce based on the limited number of participants in the study.

Limitations are potential weaknesses that are typically out of the researcher's control (Marshall & Rossman, 2016). One limitation was transferability due to the geographical location of this study, Norfolk, Virginia. The results cannot be transferred to IT companies across other geographical areas. I recommend further studies be conducted in the United Sates on a larger scale.

Another limitation of this study was that the sample size was limited to six IT leaders. I recommend studying a larger sample size. The themes might be different with a larger sample size (Marshall & Rossaman, 2016). Conducting a study of this magnitude can provide organizations with strategies to increase IT employee retention.

Reflections

The purpose of the research was to explore the lived experiences of six leaders in a military organization in Norfolk, Virginia and the strategies that play a role in their IT employee retention. I interviewed leaders who had appropriate experience and knowledge about IT employee retention. The qualitative research method allowed me to study the participants in their natural environment, and I gained an in-depth understanding of the research problem. The information obtained from the interviews supported the findings from scholars within the review of the literature, which has changed my understanding of the research problem.

Throughout the data collection process, I was mindful to remain neutral and focus on the task of the interviewer, while doing my best to make the participants feel comfortable and at ease. The participants were excited to share their knowledge, and the interviewing process allowed them to reflect on the effectiveness of their strategies. Although each participant had a different perspective, I was able to ascertain strategies leaders use to increase IT employee retention. As a former IT employee, the findings from this study helped to dispel my preconceived ideas and biases because I can now view the research problem through the lenses of six experts.

Conclusion

Business leaders often realize greater profitability when they have strategies to retain IT employees (Lo, 2015). The cost to replace an IT employee creates significant challenges from 50% to 150% of that person’s annual salary (Hester, 2013). Given the growing impact of technology on financial and operational success, retention of the IT employee is imperative (Wang & Kaarst-Brown, 2014).

Seven themes emerged from this study, and I found that work life balance was a significant strategy used to retain employees in the IT field. More precisely, the findings indicate that pay was not the primary reason given to retain IT employees; other strategies include incentives, quality of life, telework, leadership, inclusion, and staying abreast of new technology. The findings from the study were consistent with literature review and the conceptual framework by Herzberg (1959), that intrinsic (hygiene) and extrinsic (motivational) factors influence employee job satisfaction and dissatisfaction. The findings also support earlier research on IT employees (França, et.al, 2014; Jack & Palvia, 2014).

The study findings may also contribute to social change. Employees, their families, communities, organizations, and the economy can benefit from increase retention rates among IT employees. In addition, business leader could become inspired to be more innovative in their approach to retaining employees and could be useful in enacting positive organization change.

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Appendix A: Letter of Recruitment for the Company

May 25, 2016

RE: A RESEARCH STUDY THAT MAY INTEREST YOU

Dear Executive,

My name is Sherry Dixon, and I am a doctoral candidate at Walden University. I am pursuing a Doctor of Business Administration (DBA) degree with a specialization in Information Technology. I am conducting a qualitative, exploratory, single case study titled: *Retention of Information Technology Employees.* The purpose of this study is to explore the strategies leaders use to increase the retention of IT employees. I am seeking face-to-face interviews with managers who meet the following criteria:

- Managers must have a minimum 5 years of managerial experience.
- Managers must have experience implementing employee retention strategies.
- Managers currently employed in an IT position and or held a previous position in IT within Norfolk, Virginia.

I developed the study selection criteria to assure that study participants are likely to possess knowledge and information that are relevant to the purpose of this study. I understand that employees' participation is voluntary, and they may withdraw at any time, even after I have completed data collection for the study. I will protect their identity, and individual responses to interview questions will not be published or disclosed. All of the individual responses to questions will be recorded for analysis and reported in the study with no information that identifies you or your organization. However, I will be asking the organizational representative to share company documents and to reproduce employee retention strategies. At that time, I will disclose that you are participating in my study. I will share the findings from the study with study participants, other scholars, and the leaders within the participant's organization.

If you grant me permission to conduct the study using your organization, please review, sign and email or scan the Letter of Cooperation to me. Should you have any questions or concerns, please contact me at (904)891-1570.

Sincerely,

Sherry A. Dixon
Doctoral Candidate
Doctor of Business Administration Program
Walden University

Appendix B: Letter of Cooperation

DEPARTMENT OF THE NAVY
MID-ATLANTIC REGIONAL MAINTENANCE CENTER
9727 AVIONICS LOOP
NORFOLK VA 23511-2124

1500
Code 100B
May 25, 2016

Ms. Sherry Dixon
Walden University, College of Management and Technology
[redacted]

Dear Ms. Dixon,

SUBJECT: LETTER OF COOPERATION

Based on my review of your research proposal, I give permission for you to conduct the study entitled ***Retention of Information Technology Employees*** within the Mid-Atlantic Regional Maintenance Center (MARMC). As part of this study, MARMC will assist you in soliciting employees to explore the strategies leaders use to increase the retention of IT professionals via confidential face-to-face interviews with managers who meet the following criteria:

- Managers must have a minimum 5 years of managerial experience.
- Managers must have experience implementing employee retention strategies.
- Managers currently employed in an IT position and or held a previous position in IT within Norfolk, Virginia.

Individual participation will be completely voluntary and at their own discretion.

[redacted] will assist you with access to the employees that meet your inclusion criteria along with their authorized email addresses. Although this information is entirely accessible to you via your MARMC login, we understand this will help you simplify your identification process for employees as participants.

MARMC reserves the right to withdraw from the study at any time.

[redacted] I am authorized to approve research in this setting and acknowledge this request complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from MARMC and the Walden University IRB. Although the raw data will not be shared with MARMC, we will meet following the completion of your doctoral study to allow you to provide me, as the Executive Director, the summary of the results of your study for possible dissemination.

Sincerely, [redacted]

Appendix C: Participant Invitation Letter

In-Depth Interviews – Invitation to Participate in Business Research

Dear [Name]:

My name is Sherry Dixon, and I am currently a doctoral candidate in Business Administration – Information Technology at Walden University. You are invited to voluntarily take part in a research study that focus on exploring the perceptions and lived experiences on retention strategies that leaders implement to retain their IT employees. The purpose of this study is to explore the strategies leaders use to increase the retention of employees. The study conduct procedures include a series of interviews with leaders, managers and supervisors. Your name or any other information that could personally identify you will not be included in any reports of study.

If you are interested in participating in the study, please refer to the attached consent form. This document provides detailed information to help you understand the study conduct procedures and better assist you in your own personal decision whether to participate. Walden University's approval number for this study is 08-18-16-0016905 and it expires on 08/17/2017. After reviewing the attached consent form, if you are agreeable to participate in this research please reply to this e-mail with the words "I consent." By doing so, you are agreeing to voluntarily participate in the study. Please feel free to e-mail me if you have any questions or would like additional information. Please respond at your earliest convenience indicating your decision. I appreciate your time!

Sincerely,

Sherry A. Dixon
Doctoral Candidate
Doctor of Business Administration Program
Walden University

Appendix D: Interview Protocol

The interview protocol will consist of the following seven steps:

1. An opening statement with greetings and introductions;

2. The study participants should have read the consent form and provided their consent via e-mail, agreeing to participate in the research. I will thank the participant for agreeing to participate in the research study. I will also provide information regarding the member checking process that will follow the transcription and interpretation of the data. Following transcript interpretation, I will schedule time with the participants for member checking procedures to assist with ensuring the reliability and validity of the data.

3. Participants will be given a hard copy print out of the consent letter for their records.

4. I will record and note the date, time, and location.

5. I will indicate the sequential representation of the participant's name e.g., 'participant P01' on the audio recording, document on my copy of the consent form and the interview will begin.

6. Each participant will be given the required time to fully answer each pre-determined interview question in detail (including any additional follow-up/probing questions).

7. At the close of the interview, I will thank each participant for their time.

Appendix E: Interview Questions

This section includes the semistructured interview questions that I will use during the interview sessions. The results will be part of section 3 of this study.

Time of the Interview: ______________________________

Date: ____

Place: ____

Interviewer Sherry Dixon (researcher)

Interviewee (P01)

The purpose of this study is to explore strategies leaders use to increase IT employee retention in Norfolk, Virginia.

Interview Questions

1. What employee motivational factors do you use to retain IT employees in your company?
2. What strategies have you used to retain employees in the IT field?
3. Which of these strategies have you implemented to retain employees in the company?
4. Which of these strategies help to improve retention?
5. Which of these strategies did not help to improve retention?
6. Why did these strategies not improve employee retention?
7. What else would you like to add that might be applicable and that we did not cover?

Appendix F: Document Release Form

Sherry Dixon
Walden University, College of Management and Technology
Sherry.dixon@waldenu.edu

June 7, 2016

RE: TO OBTAIN APPROVAL FOR DOCUMENTS/TO BE RELEASED

Dear Organization Representative:

I am a student at Walden University pursuing a Doctor of Business Administration degree. The title of my doctoral study is "Retention of Information Technology Employees in the IT industry." A management professional from your organization has agreed to participate in my doctoral study on IT employee retention strategies. I am requesting your permission to use and reproduce employee retention documents from your company, which relates to my study. As the official with the authority to grant permission to release company documents, I am requesting release of documents subjects to the following conditions.

- I will use all company documents released to me exclusively for my research and not disclose or discuss any confidential information with others, including friends or family.
- I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as authorized by you as the official company representative.
- I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
- I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
- I agree that my obligations under this agreement will continue in perpetuity after the completion of my study.
- I understand that any violation of this agreement may have legal implications.

If these are acceptable terms and conditions, please indicate so by emailing a written approval by replying to this email and give your written consent of use.

Sincerely,

Sherry A. Dixon
Doctoral Candidate

DEPARTMENT OF THE NAVY
MID-ATLANTIC REGIONAL MAINTENANCE CENTER
9727 AVIONICS LOOP
NORFOLK VA 23511-2124

1500
Code 100B
June 7, 2016

Ms. Sherry Dixon
Walden University, College of Management and Technology
Sherry.dixon@waldenu.edu

Dear Ms. Dixon,

SUBJECT: TO OBTAIN APPROVAL FOR DOCUMENTS/TO BE RELEASED

Thank you so much for reaching out to me. By signing this document, I acknowledge that I have read the agreement of June 7, 2016 and I agree to comply with all the terms and conditions stated within that agreement.

I hereby release the Organizational Employee Retention Policy and Retention Strategies documents to you for your sole and exclusive use in your Doctor of Business Administration research study at Walden University subject to the agreement signed by you on June 7, 2016.

Sincerely, [redacted]

Appendix G: National Institute of Health (NIH) Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Sherry Dixon** successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 12/05/2013

Certification Number: 1340050