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Walden University

College of Management and Technology

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Nick Jury

has been found to be complete and satisfactory in all respects,
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Review Committee
Dr. Gergana Velkova, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Ify Diala, Committee Member, Doctor of Business Administration Faculty

Dr. Judith Blando, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2018

Abstract

Effective Strategies for Managing Continuous Consultant Turnover in IT Project Teams

by

Nicholas Jury

MS, Pennsylvania State University, 2012

BS, Pennsylvania State University, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

February 2018

Abstract

Information Technology project managers have found that collective turnover of consultants lowers code quality, increases knowledge loss and negatively impacts team performance. Within the last decade, companies have begun to see that offshore consultants have a turnover rate greater than 26%, more than double the rates for the rest of the IT consulting industry. Collective turnover also puts additional pressure on the project team, causing work exhaustion and thus additional turnover. The purpose of this single case study was to explore strategies that 6 successful project managers utilized to limit and reduce the impact of collective turnover of their hybrid sourced project teams. Participants were selected through purposeful sampling, based on career experiences and history of successful project execution. Data collection was completed through semi structured face to face interviews, acquisition of company documents including knowledge transfer plans, onboarding documents and turnover statistics. Data was analyzed using coding and key word analysis. Three themes emerged from data collection on the impact collective turnover has on hybrid sourced project teams. First, collective turnover of consultants decreased team performance. Second, improving global team dynamics reduced the negative impact of collective turnover. Last using knowledge transfer tools and project documentation practices reduced the negative impact of collective turnover. This research may contribute to positive social change by providing managers information and techniques to improve global team dynamics and remove cultural barriers from the workplace.

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Dedication

During my doctoral journey, I experienced extreme challenges that at times felt insurmountable. I would like to thank god for giving me the strength to weather the challenges and not give up on my dream of completing the doctorate of business administration program. I could not make it through this program without the help and support of my family. I dedicate this study to my wonderful children Nathan and Ali; they give me a reason to get up every day, and charge me with focus and energy to be the best human being and father I can be. To my mom Dee Jury, and my sister Hillary Jury, thank you for always believing in me, and stepping in to help whenever asked, and pushing me to continue on. I want to thank my best friend, Joe Hayden, for always being there for me, and challenging my mind. To Dr. Gergana Velkova, thank you for putting up with my questions and constantly challenging the way things work, without your knowledge, and patience I would never have completed this study. Lastly, I would like to thank all my friends and family who I did not list by name that have helped over the last 3 years, each of you know who you are and I appreciate having so many wonderful people in my life.

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I want to thank my committee members for their hard work helping me complete my dream of becoming a Doctor of Business Administration. To Dr. Gergana Velkova, for being patient with me and helping me find a way to channel my career and life experiences into a meaningful study. I would like to thank my second chair, Dr. Ify Diala, for supporting my work and providing good feedback to help improve my study. I would like to thank Dr. Lynn Szostek, for stepping in and helping me move forward with my study when others were not available, and providing great insight into future research ideas that could come from my doctoral study. I would like to thank the Walden University Writing Center, and all the professionals at the University that give people who can't quit working and attend a brick and mortar program a chance to experience and complete a doctoral program.

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Section 1: Foundation of the Study

Information technology (IT) project managers (PMs) face growing challenges while working in their fast-paced and ever-changing industry. Of particular concern to IT leaders are the benefits, risks, and challenges associated with offshoring of IT jobs to non-domestic workers (Korrapati & Nair, 2010). Some companies choose to put together a hybrid-sourced team consisting of both full-time U.S. workers and outsourced consultants; IT PMs of these types of teams have the added challenges of contrasting turnover rates and team dynamics (Cha & Quan, 2011). These challenges can lead to collective turnover of team members, which increases project failures and reduces team effectiveness (Nyberg & Ployhart, 2013). IT leaders are under pressure to develop strategies to mitigate high turnover rates of consultants and increase project success rates.

The focus of this study was to explore the challenges IT PMs and members of their teams' experience because of high consultant turnover throughout the application development life cycle, and the strategies IT PMs implemented successfully to mitigate these challenges. Using a qualitative case study design allows a researcher to explore the perspectives of many different people in a similar situation (Yin, 2012). For this study, I explored situations when high consultant turnover produced challenges for the project team and identified the strategies that project managers used that were most effective in dealing with the challenges. Understanding which strategies yield successful results in mitigating the challenges caused by high consultant turnover may help other IT PMs in the industry manage turnover.

Background of the Problem

Outsourcing complex IT jobs may lead to loss of knowledge and reduced project quality for IT teams, as well as potential financial impacts resulting from additional training and knowledge lost when the team disbands (Silvius, Turkiewicz, Keratsinov, & Spoor, 2013). Leaders of companies with complex IT processes realize that outsourcing entire IT departments is not an optimal approach (Kang, Wu, Hong, & Park, 2012). Rather than outsourcing entire IT departments, some company leaders choose to use a hybrid sourcing model, outsourcing some jobs to consulting companies, which could be located offshore, while others positions are full-time employees within the company (Brändle & Koch, 2014). Many IT professionals have assumed this approach helps company leaders mitigate some of the knowledge loss and communication issues associated with offshoring (Venkatesh, 2006).

Although benefits exist to using the hybrid-sourcing model, new challenges may come from the extreme differences in turnover rates between U.S. team members and Indian-based consultants (Cha & Quan, 2011). In the United States, companies value highly skilled employees and encourage them to remain with the company (Wooldridge, 2015); turnover in India is an expected or even forced method of promotion and movement for all workers (Monsen, Mahagaonkar, & Dienes, 2012). PMs must manage high turnover rates, which can place a company in a near-constant state of turnover leading to rework and training of new workers, putting project teams at a higher risk of failure (Lin & Wei, 2013). Additional research can help IT PMs develop and implement strategies that may minimize these risks.

Problem Statement

Turnover rates for offshore consultants in hybrid-sourced project teams exceed 26%, which is more than double the rates for the rest of the IT Services industry (Bammidi & Divya, 2013). Collective turnover of offshore consultants can lead to reduced team productivity by 50% (Duda & Žůrková, 2013) and increase project costs by up to 7 times the salary of the employee leaving the team (Ghapanchi, Ghapanchi, Talaei-Khoei, & Abedin, 2013) which, in turn, leads to lower project success rates (Han & Mithas, 2013). The general business problem is that, due to continuous high turnover rates of offshore consultants, hybrid-sourced project teams are experiencing reduced productivity and increased project costs, thus leading to lower project success rates. The specific business problem is that some IT PMs lack strategies to limit and mitigate the impact collective turnover of consultants has on hybrid-sourced project teams.

Purpose Statement

The purpose of this qualitative case study was to explore the strategies IT PMs use to mitigate the negative effects of high levels of consultant turnover on hybrid-sourced IT project teams. The targeted population included six IT PMs who manage hybrid-sourced IT teams in a corporation that employs more than 1,000 employees, located in northeastern Pennsylvania. The implication for positive social change includes the potential to reduce turnover and knowledge loss in hybrid-sourced teams, which may decrease workplace stress and improve global team dynamics. Limiting negative impacts due to collective turnover of consultants may lead to a healthier mental state for employees, and increase multicultural acceptance within project teams. Successful

hybrid-sourced IT teams will call for more complex positions for US workers which may lead to higher paying jobs and more job security for families of those employed in the IT industry.

Nature of the Study

I chose the qualitative method for this study. The qualitative research method provides a structured approach with which to probe into issues, provide insights into problems, or develop hypotheses for future research (Sarker, Xiao, & Beaulieu, 2013). Bailey (2014) noted that researchers use qualitative approaches to explore issues and better understand a phenomenon when the goal is to put the focus on the depth and detail of the research rather than on statistics and data analysis. Use of the qualitative method enabled me to explore and understand business strategies that IT PMs use to limit and mitigate the impact collective turnover of consultants has on hybrid-sourced project teams.

In contrast to qualitative approaches, quantitative research is grounded in numerical data and statistics, and enables researchers to gather information so interested parties can understand and address questions of *how many, how often, who, when*, and where (Barnham, 2015). Quantitative research was not appropriate for this study because the goal of the proposed research was not to explore relationships between variables or to test hypotheses. Mixed methods research involves combining both quantitative and qualitative approaches in a meaningful way (Tashakkori & Teddlie, 2003). Turner (2013) stated that a mixed methods approach allows researchers to examine the same phenomenon using both quantitative and qualitative methods, potentially increasing the

validity of research findings. In this study, I did not utilize statistics analysis to answer a hypothesis, so mixed method research was not appropriate.

A case study approach was appropriate for this research because this research required exploration of current strategies IT PMs are using to limit the impact that collective turnover of consultants has on hybrid-sourced project teams. As Yin (2003) explained, case studies allow researchers to shine a light on participants' decisions with the goal of explaining why the participants made these decisions, how they implemented the decisions, and what transpired because of having made and implemented the decisions. For the purpose of this study, I explored strategies used to limit and mitigate impacts collective turnover of consultants has on hybrid-sourced project teams

Researchers utilize a phenomenological approach when they strive to learn about a phenomenon through the lived experiences of subjects (Sarker et al., 2013). A phenomenological approach was not suitable for the study because I did not explore the lived experiences of participants. When employing a narrative research design, hybrid-sourced IT researchers rely on participants' experiences, as recounted in stories or narratives, to explore a topic (Soin & Scheytt, 2006). Narrative research design was not appropriate because stories alone will not yield sufficient data to allow for detailed understanding of the strategies that could help all PMs.

Research Questions

What business strategies do successful IT PMs use to limit the impact collective turnover of consultants has on hybrid-sourced project teams?

Interview Questions

I will pose the following interview questions to IT PMs to gain insight into the problem of high consultant turnover on a project team:

1. What challenges have you seen while managing an IT project team that consists of both U.S. employees and outsourced consultants?
2. What impact has team personnel turnover have IT project teams you have managed?
3. Please describe how these challenges impacted project deliverables.
4. What strategies have you used to successfully mitigate the challenges caused by turnover?
5. What strategies have you implemented which were unsuccessful in reducing the issues caused by high levels of consultant turnover?
6. What strategies have you implemented to improve knowledge transfer when IT project team members transition on or off a project?
7. What other information would you like to provide that we have not already talked about?

Conceptual Framework

The theory that served as the framework for the research is the context emergent turnover theory. Collective turnover in large corporations can lead to knowledge loss and negatively affect productivity and profitability of an organization (Soundarapandiyan & Ganesh, 2015). In an effort to explore the effects of collective turnover on unit performance, Nyberg and Ployhart (2013) developed the context emergent turnover theory in 2012. Within the context emergent turnover theory, Nyberg and Ployhart

emphasized the increasing and dynamic nature of collective turnover and explained how continued collective turnover reduces human capital resources over time. Collective turnover refers to loss of employees' knowledge, skills, and abilities over time (Heavey, Holwerda, & Hausknecht, 2013).

In developing the context emergent turnover theory, Nyberg and Ployhart (2013) found that continued loss of high quality talent over time increases the negative relationship between turnover and unit performance. In addition, Nyberg and Ployhart found that the overall quality of the remaining workforce correlates to an increase or decrease in unit performance because of turnover. Business leaders in the IT field rely on knowledge sharing and employee collaboration to facilitate a learning organization (Geer-Frazier, 2014). Consequently, CET serves the needs for this study because this theory helps to explain the dynamic relationships between collective turnover, human capital resources, and their effects on unit performance.

Definition of Terms

Terms used in this study are defined as follows:

Collective turnover: Collective turnover is the loss of employees' knowledge, skills, and abilities over time (Heavey et al., 2013).

Consultant: Consultant refers to an offshore (non-domestic) technology associate contracted by a US company (Srivastava & Teo, 2012).

Hybrid-sourced IT team: A hybrid-sourced IT team is a group of individuals chosen to work together on an IT project and consisting of both onshore full-time employees as well as offshore consultants (Brändle & Koch, 2014).

Knowledge transfer plan: A knowledge transfer plan is a document that incorporates all the tasks or procedures needed to effectively manage knowledge and transfer knowledge to a new resource (Betz, Oberweis & Stephan, 2014).

Turnover intention: Turnover intention is a measure of an employee's aim to voluntarily leave his or her current position (Faloye, 2014).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions in research are aspects of the study believed to be true without evidence to support that belief (Haiker, 2013). I made a few assumptions for this study. One assumption was that IT PMs at a company in northeastern Pennsylvania, who meet the participation criteria, will be available for and willing to participate in the study. Upon completion in the study, I was able to find qualified PMs who were available to participate. Another assumption is that participants will answer questions truthfully and that the information they provide will yield enough information to answer the research question. Through interviews with six qualified PMs, I was able to reach data saturation, and yield enough information to answer the central research question. The final assumption is that, because I work in the same industry as the participants, the participants will not modify their answers or be dishonest because of their knowledge of my work or professional interactions with me.

Limitations

Limitations of a study are matters or issues that might occur and are outside of the researcher's control (Kirkwood & Price, 2013). One limitation of this study is potential

bias due my views on the research question because I am an IT project manager in the industry and am located in the same geographic location of the study. Bracketing is the process by which researchers consciously set aside their preconceptions and biases and thereby make better, unbiased decisions (Chan, Fung, & Chien, 2013). Prior to posing the interview questions and conducting the interviews, I bracketed my own opinions about the subject and followed accepted research protocols to ensure I did not incorporate any personal bias into the research. In addition, I provided transcribed interviews and interpretations to participants to insure accurate transcription and analysis of interview responses. A second limitation for the study was that the accuracy of the results relied on honest answers from participants on the challenges they had on their project teams as well as the strategies they used to overcome them. Bell, Fahmy, and Gordon (2016) suggested avoiding long unscripted conversations to limit embellishment and ensure the interview questions are answered. A third limitation of the study is that all participants came from a single organization. This could lead to a situation where an issue or solution that was found is specific to the organization chosen for this study rather than the industry.

Delimitations

Delimitations are the boundaries of the scope for the research study, defined by the researcher (Olivero, Márquez, & Real, 2013). The participants for this study were IT PMs who worked for a company with over 700 employees in their IT department, and managed team members who are full-time U.S. employees, as well as outsourced India-based consultants. The participants were PMs with experience in leading IT project

teams, who worked within a hybrid-sourcing model. In addition, participating PMs had at least 2 years of project management experience within the company. I did not interview consultants as part of this study as the focus was on strategies to overcome the challenges the project team has dealing with the turnover not to find ways to reduce turnover levels.

Significance of the Study

The findings of the study may provide IT PMs with insight into strategies that they can employ to mitigate the negative effects of high turnover rates on hybrid-sourced IT project teams. Increased turnover leads to higher rates of failure in IT projects (Abdul-Rahman, Mohd-Rahim, & Chen, 2012). In addition to IT project failures, high turnover causes rework for the project team, time lost, higher project costs, and knowledge loss (Han & Mithas, 2013). Potential strategies to mitigate these negative effects of turnover with proven success records for some IT PMs may help other project teams operate more successfully and help PMs manage their resources more efficiently. The findings of this study may bring value to businesses through improved project performance, higher success rates, and higher ROI. In addition, the findings from this study may contribute to positive social change by shedding light on cultural challenges on global project teams, and improving job stability in hybrid sourced companies.

Contribution to Business Practice

Higher success rates of projects can lead to increased profits for the business, which can potentially be reinvested to create and implement new technology practices or add more team members (Ray, Ling, & Barney, 2013). These practices help turn IT into an asset rather than a liability (Ray et al., 2013). In addition, results of this research may

help to fill a gap in the literature regarding employee turnover. The results of this research may contribute to the knowledge base by shedding some light on successful implementation and management of turnover strategies in hybrid-sourced IT project teams. In addition, the findings of this study may provide IT project manager new strategies that limit knowledge loss and project delays due to high consultant turnover, which may then lead to lower project costs and higher success rates.

Implications for Social Change

The results of this research can contribute to positive social change by helping IT project team leaders understand the impact of collective turnover on the project team members. Communities benefit from successful businesses (Steiner & Atterton, 2014). In global teams, business success may impact several communities around the globe. Deery, Nath and Walsh (2013) found that top concerns for Indian consultants include: fear the consultants will experience unfair judgment, concern that consultants may face racial abuse, or consideration that consultants may experience repercussions of favoritism in favor of U.S. employees. All these concerns may contribute to turnover and disrupt teams. Implementing business strategies to mitigate the negative effects of high consultant turnover may improve global team dynamics and reduced turnover, which PMs can use to improve teams' conditions and reduce employee health concerns caused by high stress. In addition, business strategies that promote global partnership and bridge gaps between teams can be used by PMs to increase multicultural awareness, which will help build higher functioning teams of professionals. Healthy successful global project teams may assist PMs in leading successful projects and promote continued positive

client and consultant relationships, which can produce additional high quality job opportunities in several global communities, and improve life for global team members and their families.

A Review of the Professional and Academic Literature

The purpose of this qualitative study is to explore the business strategies that IT leaders need to mitigate the negative effects of high consultant turnover on hybrid-sourced IT teams. Scholars use literature reviews to synthesize ideas from existing literature, determine gaps in knowledge areas, validate the need for the study, and establish the appropriateness of the central research question (Kwan, Chan, & Lam, 2012). This review includes a discussion of the theory I used to build the conceptual framework of the study, along with discussions of several rival and similar theories, which help define the current landscape on the impact of turnover on project teams. Furthermore, other primary topics in the current literature on turnover and hybrid-sourced teams include sourcing, turnover, and global team dynamics. I have divided each of these themes into several subthemes for deeper analysis.

I conducted a review of current literature related turnover and the IT industry published in scholarly peer reviewed journals, business journals, books, dissertations, and government websites. Searches included key terms associated with each theme, and were completed using several academic databases and online libraries' such as the Walden University library, Computers and Applied Sciences Complete, SAGE, ProQuest, Google Scholar, Thoreau, and ScienceDirect. The total numbers of references I reviewed included five books, 200 journals and articles, and one government website. Of these

206 sources, 124 were scholarly peer reviewed within the past 5 years (2013 – 2017). As I analyzed the results of the key terms searchers, I grouped topics into the three core themes of sourcing, turnover, and global team dynamics.

Context-Emergent Turnover Theory

Collective turnover in large corporations can lead to knowledge loss and negatively impacts the productivity and profitability of an organization (Soundarapandiyan & Ganesh, 2015). Nyberg and Ployhart (2013) explored unit level turnover at a higher vantage point in hopes of addressing how turnover rates affect an organization over time (as cited in Reilly, Nyberg, Maltarich, & Weller, 2014). They used this research as the basis for creating context-emergent turnover theory (CET). While developing the CET, Nyberg and Ployhart found that both the quantity and quality of continued collective turnover of human capital resources has a negative impact on team and unit performance.

Collective turnover refers to loss of employees' knowledge, skills, and abilities over time (Heavey, Holwerda, & Hausknecht, 2013). Nyberg and Ployhart (2013) defined collective turnover as the quantity and quality of collective loss or depletion of employee knowledge, skills, abilities, and other characteristics (KSAOs) from a work unit or team. Their findings, which led to the creation of the CET, allowed Nyberg and Ployhart to confirm that high turnover of these resources does have a negative effect on team performance. Nyberg and Ployhart further found that collective loss of resources over time increases this negative relationship. Expanding on the concept of collective loss, Nyberg and Ployhart examined whether the quality of the employees that did not

turnover led to higher or lower impacts to team performance. In the conclusion of their study, Nyberg and Ployhart stated that if many of the employees remaining on a team experiencing high turnover were high-quality employees or high performers, the remaining workers could minimize the negative impact on team performance (Reilly et al., 2014). In contrast, if many the employees remaining on a team experiencing high turnover were low quality or underperformers, they could intensify the negative impact on team performance (Reilly et al., 2014). According to the CET, collective loss over time will have a negative impact on team performance, but the ability of remaining employees to transfer knowledge and understand the complexities of the work could help reduce the impact (Nyberg & Ployhart, 2013).

Reilly et al. (2014) used the CET theory to explore the effects hiring, transfers, and voluntary turnover has on human capital. The researchers found an increased impact to team performance when employees left the company, rather than when they transferred to another department. Those employees who transferred were still available to continue knowledge transfer and information sharing with the team they left after the initial transfer of information, while those who left the company were generally unavailable for additional follow-up. In their study, Simon, Shaw, and De Sivante (2014) tested many of the hypotheses of the CET and added new research questions. Specifically, they explored how the timing of collective turnover affects team performance. Simon et al. partially supported the tenants of the CET theory, agreeing that the quality of remaining human capital on the team experiencing collective turnover can reduce the negative impact to team performance. However, they disagreed with Nyberg and Ployhart's (2013)

statement that continued loss of high quality talent over time significantly increases the negative relationship between turnover and unit performance.

The IT industry has higher than average turnover rates, especially when using various sourcing models (Janani, 2014). One challenge impacting the IT outsourcing industry is cohort turnover where companies choose to let go of experienced workers and replace them with new or inexperienced workers (Chopra & Kondapalli, 2015). Many sourcing companies use the cohort turnover process to reduce the cost of talent and keep the workforce fresh. Another challenge business leader's face from constant turnover of key team members is poor knowledge transfer practices, which can lead to knowledge loss (Young Bong, Chang, & Vijay Gurbaxani, 2012). Organizational leaders can use the CET theory and studies further exploring the theory and its impact on project teams to develop strategies to mitigate negative effects collective turnover has on project teams over time.

Rival and Supporting Theories

There are other theories that both complement and challenge tenants of the CET that researchers can use to explore turnover and its effects on projects teams. Two of these theories are expectancy theory and Herzberg's (1974) two-factor theory. Victor Vroom developed the expectancy theory in 1964. The theory included the proposal that motivation can be defined as the process in which individuals make decisions, choose actions, or change behaviors because of how they feel they will be rewarded (Lavota, 1987). Essentially, Vroom (1964) suggested that people actively choose between

alternatives with the goal of choosing items that maximize pleasure and minimize pain (Lavota, 1987).

Three core beliefs of expectancy theory exist which include: *valence, expectancy,* and *instrumentality* (Vroom, 1964). Valence refers to the emotions workers have toward extrinsic and intrinsic rewards (Vroom, 1964). Expectancy relates to the level of confidence an employee has in what they can accomplish and to how they are expected to be rewarded (Vroom, 1964). Instrumentality is the level of belief a workforce has that their managers will come through on promises made if they accomplish their goals (Vroom, 1964). Managers negotiate these factors of expectancy theory to increase job satisfaction for employees, which helps to reduce voluntary turnover (Chou & Pearson, 2012).

Nimri, Bdair, and Al Bitar (2015) utilized expectancy theory to determine the extent to which intrinsic and extrinsic factors motivate employees, and how managers should incorporate strategies to ensure rewards properly motivate employees. Chang, Hsu, and Wu (2015) used expectancy theory to explore what recognition and rewards could be implemented to improve managers' willingness to use big data. Chang et al. found that intangible rewards significantly influence managers' intentions to read information because they desired to make good decisions. Motivating factors such as upper management support of employees helps reduce employees' likelihood to turnover on project teams (Simo'n, Shaw, & De Sivatte, 2014). In another study, researchers used expectancy theory to explore non-retirement turnover of faculty at a community college (Dee, 2010). Dee (2010) found that faculty who reported higher levels of support for

innovation had a lower probability for voluntarily leaving the college. My study included questions that help further information on turnover impact on project teams.

Expectancy theory has also been use by researchers to explore turnover in the IT industry. Chou and Pearson (2012) conducted a study in which 86 software developers participated in a survey to determine how their job stress, trust in their company, and commitment to the company affected job satisfaction and turnover intention. Results of the study support the tenants of the expectancy theory that reduced job stress and strong trust in a company improved job satisfaction and lessened the chance for voluntary turnover (Chou & Pearson, 2012). There is significant research within the IT industry regarding the effects of turnover on project teams and approaches to reducing turnover (Boyar, Valk, Maertz, Carl, & Sinha, 2012; Deery, Nath, & Walsh 2013; Janani, 2014). Gorla and Somers (2014) used expectancy theory to explore the impact of outsourcing on IT systems success. The researchers found that quality of service was the main factor that affected the organizations view on outsourcing (Gorla & Somers, 2014). Collectively, this research shows that expectancy theory can help researchers better understand the reasons behind employee turnover, and what could motivate a workforce and reduce high turnover rates.

In 1964, Herzberg developed the two-factor theory while analyzing interviews with 203 engineers and accountants. Herzberg (1964) explored different job satisfaction factors in the workplace and reported the existence of certain factors in the workplace that lead to positive job satisfaction, called m*otivators*, and a separate set of factors that lead to job dissatisfaction, called *hygiene factors* (Herzberg, 1974). Herzberg, Mausner,

and Snyderman (1959) identified five motivators that lead to job satisfaction: achievement or quality performance, recognition, responsibility, work-itself, and advancement and growth. Herzberg at al. also defined five hygiene factors that lead to job dissatisfaction: company policy, supervision, interpersonal relationships, working conditions, and salary.

Since the release of the study, researchers looked for ways managers can use motivators and limit or remove hygiene factors to improve job satisfaction. Herzberg at al. (1959) found that support for high performers, employee recognition, and positive feedback on performance are all highly effective employee motivators which increase job satisfaction. In addition, employee job satisfaction increases when the company provides the workforce with the tool(s) required to complete the job and the authority to meet customer needs (Herzberg et al., 1959). Researchers in all business areas studying many different job functions have used the Herzberg two-factor theory to understand job satisfaction factors and the limiting factors that contribute to job dissatisfaction. For managers to successfully mitigate the challenges related to high consultant turnover, they must first understand that factors that lead to turnover.

Researchers in the IT industry frequently use Herzberg's two-factor theory to explore issues of team dynamics, inclusion, and job satisfaction. Briggs and Thomas (2015) completed a study to determine how different types of people within communities react to the use of technology. The results of their study echoed the results of Herzberg's test, as they found a set of motivators that push all groups to use technology, along with a

group of hygiene factors that caused potential distraction from use, which differed amongst the groups (Briggs & Thomas, 2015).

In another study, Wu, Chuang, and Chen (2008) surveyed 758 search engine users to find out reasons and features that led users to select a search engine, and what caused them to continue using the search engine over time. Wu et al. (2008) defined basic features and capabilities as the hygiene factors, and features that helped users navigate content and understand results as motivation factors. The conclusion was that hygiene factors include a higher probability to draw users to a site, but motivation factors account for reasons users continue to use an application. Using the tenants of the two-factor theory, Derby-Davis (2014) found and documented motivators and hygiene factors in the nursing industry. Islam and Ali (2013) tested Herzberg's two-factor theory with a sample of teachers at private universities and found the top two motivators were the work itself and achievement. PMs in teams utilizing sourcing can use Herzberg's two-factor model to understand the factors that motivate workers to stay with a company, as well as hygiene factors that need to be avoided to eliminate job dissatisfaction.

Sourcing

The primary search terms I used to gather literature for this section included *sourcing, types of sourcing, offshoring, outsourcing, insourcing, outsourced teams,* and *global sourcing*. When companies have a need for a skill set that they do not have or do not wish to acquire in-house, they often source these positions through other means. Several commonly used sourcing options I explore in this literature review are outsourcing, hybrid sourcing, quasi-sourcing, and insourcing. Outsourcing occurs when

managers choose to transfer a business process or job function outside of their organization (Han & Mithas, 2013). Hybrid sourcing occurs when management chooses to outsource a portion of a department or team, while keeping the remainder of the team onshore or within the company (Brändle & Koch, 2014). The quasi-sourcing approach allows a company to create a subsidiary and outsource IT work to the subsidiary company (Väyrynen & Kinnula, 2012). Although most sourcing options provide value to the companies implementing them, sometimes these methods stress a business, and there is a decision to backsource or insource the roles back to full time employees. Insourcing or backsourcing is when a company who moved job skills or functions outside of the company to an external vendor or consulting company chooses to return some of these skills or functions back to full-time employees within the company (Solli-Saether & Gottschalk, 2015). Offshore workers in primary sourcing companies in countries such as India have a much higher turnover rate than full time U.S. employees working on IT teams (Janani, 2014). IT leaders must understand the different types of sourcing, including their benefits and issues, to put their team in the best position for success.

Outsourcing. Outsourcing is an approach used by companies to move a business process or skillset from within an organization to an external organization (Nagpal, Nicolaou, & Lyytinen, 2014). The sourcing could come from another U.S. based company that provides a specialized skillset (Worley, 2012), or an offshore company, which can provide services at a reduced rate (Caniato, Elia, Luzzini, Piscitello, & Ronchi, 2015). Tajdini and Nazari (2012) suggested that outsourcing removes the need for companies to recruit, train, and retrain an internal group of qualified employees. By

contrast, Swar, Moon, Oh, and Rhee (2012) believed that outsourcing reducing a company's ability to become a learning organization, causing IT to be less of an asset for the company. Outsourcing is often the focus of public scrutiny over the loss of jobs for the company doing the outsourcing, but Sparrow, Milner, Hyatt, and Nuttall (2012) found that many new jobs are usually created to fill needs which arise from outsourcing activities. This study will explore the effects of high consultant turnover on hybrid sourced IT teams. Understanding all types of sourcing and their effects on projects teams can help business leaders develop strategies to mitigate the negative effects of high consultant turnover.

Existing literature on outsourcing showed that researchers focused on reasons why companies outsource, the effectiveness of outsourcing, and future trends of outsourcing. A goal of this review was to explore each of these topics to understand current stances of researchers and organizations along with potential gaps in existing literature. Historically, three core reasons companies choose to outsource IT functions are: to reduce costs, to improve the quality of IT services, or to focus on the company's primary objectives (Brandabur, 2013; Han & Mithas, 2013). Jain and Khurana (2015) surveyed 50 IT managers and found the preferred pricing model for outsourced IT work is time plus materials, and the advantage of that model make outsourcing attractive to managers.

Researchers exploring outsourcing continue to look at existing reasons companies outsource, while also exposing new reasons for outsourcing. Choi and Choi (2013) explained that the pressure for cost savings was the primary factor that pushed companies

to outsourcing in the past, while more recently attempted to apply the technique as a method to gain a competitive advantage. This theory gets challenged by many in the IT industry who stressed that companies need to have strong talented internal IT organizations to build a skillset and culture that supports utilizing IT to drive the competitive advantage (Ashrafi & Mueller, 2015; Jain, Saini, & Verma, 2012; Roberts, N., & Grover, 2012).

Many conflicting opinions exist regarding the effectiveness of outsourcing. Handley and Benton (2009) found that outsourcing IT jobs to consulting companies showed an initial savings from moving jobs in many cases. By contrast, Peslak (2012) surveyed top corporate financial executives to determine the implementation rate and success of outsourcing and offshoring IT functions. The results of the study showed only 30% of the major corporations responding used IT outsourcing, and those who outsourced IT functions did not find significant cost savings (Peslak, 2012).

Recent studies by researchers in the IT included exploration of whether outsourcing IT functions leads to knowledge loss and drains competitive advantage or if outsourcing may bring new talent and skills into a company and provide a competitive advantage (Choi & Choi, 2013). Since the inception of outsourcing, several prominent authors raised concerns over knowledge loss and negative effects of outsourcing. Yoda and Yoshida (2011) acknowledged benefits of outsourcing, but stressed the importance of retaining positions with control over key knowledge areas within the company. In a study of companies who chose to back source IT functions, Solli-Saether and Gottschalk (2015) found the top reasons were: unanticipated costs, lower quality than expected, loss

of control over resources and service functions, and a knowledge gap between client and vender. In contrast, Nagpal, Nicolaou and Lyytinen (2014) proposed that offshoring provides a means of acquiring new capabilities and has the potential to bring on strategic and structural transformation.

In a study on firm learning, Mani and Barua (2015) found that when providers engage in procedural and relational learning with contractors the providers see improved outsourcing performance. The authors also stated that improved performance must include measurement against a potential loss in competitive advantage, as the contractors often work with many different providers in the same industry. These findings coincide with the findings of Liu and Wang (2013) that the digital age leads to a major shift in classic outsourcing situations and consequently risks associated with projects utilizing outsourcing. The digital age and global teams continue to change the way traditional outsourcing impacts businesses, requiring additional research to understand new best practices and risks.

India and other countries who house major offshore consultant providers have much higher turnover rates than the IT companies who utilize their services (Janani, 2014). Many companies experience damage to team performance and project quality because of knowledge loss from constant team turnover (Young Bong, Chang, & Gurbaxani, 2012). Madsen, Bødker, and Tøth (2015) suggested that the most critical factor in limiting knowledge loss is strong training and support for onsite client managers.

Hybrid sourcing. Hybrid sourcing is a type of outsourcing that inherits many of the advantages of both outsourcing and internal IT teams, while adding new challenges related to global team dynamics. Different types of jobs are more attractive to outsource then other, which leads to hybrid sourced teams that include a mix of internal IT employees or onshore consultants, along with offshore team members (Brändle & Koch, 2014). Hybrid sourcing allows the company to retain some of its technology assets, while also gaining competitive advantage from an external vendor focused on software development. In a case study on sourcing during a business transition, Yoda and Yoshida (2011) found that insourcing IT management allows companies to advance business knowledge and creates a unique and effective IT team. Han and Mithas (2013) explained that companies who invest in internal IT, while also outsourcing have an increased ability to monitor the outsourced firm's performance and coordinate activities.

While the advantages of hybrid sourcing can be substantial, the model also brings some additional complications because of global team dynamics and communication. Neeley (2015) noted that if not managed correctly, global teams will be overcome with communication issues, misunderstandings, and disinterest. Khan and Azeem (2014) found similar results stating the most common reasons for global team failure included (a) a lack of communication between stakeholders, (b) time zone differentials, and (c) high costs of utilizing new technology that could improve communication. As companies continue to implement this approach, additional research will be required to understand the approximate balance of positions and best practices for managing organization and communication.

Quasi-sourcing. Large companies involved in the global marketplace need to have a strong IT presence to compete. Sometimes this strategy produces a complex internal IT workforce in a company that is either not capable or not interested in sustaining a large workforce (Väyrynen & Kinnula, 2012). Companies use quasi-sourcing to create a subsidiary and move some or all its IT functions to the subsidiary (Väyrynen & Kinnula, 2012). This process allows the company to sustain its technology presence well separating IT functions from the core business.

The quasi-sourcing approach brings advantages and challenges to both the sourcing company and the subsidiary. Barthélemy and Geyer (2005) compared quasi-sourcing with conventional outsourcing, and found top benefits of quasi–sourcing includes allowing IT departments to act like external vendors by removing some of the bureaucracy, needed for the larger company from the IT subsidiary. In addition, Barthélemy and Geyer found the implementation of quasi-sourcing allows companies to avoid contractual hazards that outsourcing large IT departments often produce. In contrast, Tambe and Hitt (2010) stated significant benefits of having IT team members and business associates co-located when dealing with complex applications. Quasi-sourcing creates a separation that eliminates advantages gained from co-location of IT and business team members. Historically, quasi-sourced operations included success only when able to generate significant business from multiple organizations (Barthélemy & Geyer, 2005).

Backsourcing. occurs when a company is utilizing outsourcing or offshoring IT capabilities decides to move some or all the resources or activities back inside the

company (Solli-Saether & Gottschalk, 2015). Outsourcing IT capabilities was common practice throughout the 2000s for organizations looking to reduce cost. In recent years, top management looked closer at costs saved versus challenges coming from poor outsourcing agreements, many deciding to bring these operations back into the company. Current research of top executives found excessive costs, poor service, and quality, change in executive management, and change in corporate strategy as top reasons for backsourcing (Solli-Saether & Gottschalk, 2015). To combat this, shift back to traditional internal IT, offshore vendors continue to work to train their outsourced workforce in business, communication, and technology skills required to become successful IT resources (Scheibe et al., 2006).

Turnover

The primary search terms used for the turnover sections included *turnover, types of turnover, reasons for turnover, negative effects of turnover, turnover intentions, turnover rates in information technology, turnover rates in the United States,* and *turnover rates in India*. Employee turnover comes in many forms and can impact a team in both positive and negative ways (Guha & Chakrabarti, 2014). Managers throughout all industries agreed that employees are the most important resources, and managing and retaining talent is a key to the success of the organization (Bryant & Allen, 2013; Mitchell, Burch, & Lee, 2014).

To understand the effects of turnover on hybrid sourced teams, I completed an extensive review of existing literature on several aspects of turnover. Topics critical to understanding the central research question included turnover's effects on IT project

team's performance, cultural differences in reasons for turnover, and strategies used to limit negative effects of turnover. The Context emergent turnover theory is used to measure the collective loss of employee knowledge, skills and abilities from employee depletion (Nyberg & Ployhart, 2013). Nyberg and Ployhart looked at the dynamic relationships between collective turnover and human capital resources, and their effects on unit performance (Nyberg & Ployhart, 2013). This constant turnover leads to a lower performing project team. Consequently, the key topics associated with turnover I chose to explore for review are: global turnover rates in areas involved in IT sourcing, reasons for turnover, and negative effects that come from high turnover.

Turnover in Global Technology Teams. Reasons for turnover and the rate of turnover differ in different industries and areas of the world. Qazi, Khalid, and Shafique (2015) explained that when an employee leaves or has intentions to leave a company, the company is at risk of losing critical knowledge and incur costs for finding and training a replacement. A 2014 survey of 143 of IT employees found that increasing skills levels and opportunities for IT employees is making it more difficult for leaders to retain talent (Korsakienė, Stankevičienė & Talačkienė, 2014). To avoid knowledge loss and additional costs of turnover, business leaders need to understand reasons for high turnover within the IT industry and proactively work to reduce turnover (Lo, 2015)

Many of the countries that are major providers of offshore consultants have very high turnover rates. India is the leading provider of offshore outsourcing services controlling over 40% of the market in 2008 (Ribeiro, 2008). Asia, with a focus on China, continues to gain traction as an offshore consulting provider, as several companies

continue to create organizations to utilize their growing talent pool. In 2014, India included the expectation to lead the IT services industry with turnover rates of nearly 28% (CompForce, 2014). In 2014, China's IT services industry saw turnover rates of 19.1%, although better than India, these rates are still significantly higher than the global average of 12.5% (CompForce, 2014; Jingxi, 2015). The turnover rates for the top countries that provide offshore IT workers to the U.S., such as India and China, are more than double that for the United States, which causes challenges for interactions between the offshore and onshore teams (Bammidi & Divya, 2013). These high turnover rates have a negative impact on project teams, and often lead to lower project quality, and increased knowledge loss (Janani, 2014). Understanding the differences in turnover rates within countries the impact the outsourcing industry, will help PMs predict and manage turnover more effectively.

Factors that lead to high turnover in the IT industry is a highly studied area as more business leaders realize the impact of turnover on project teams. Turnov, Guha, and Chakrabarti (2014) found that the top reasons (IT) employees leave a company was the hope for a higher salary, followed by a want for higher profile projects, and wanting to work for a more well-known organization. Ertürk (2014) found that organizational trust is a key contributor to avoiding turnover of highly skilled IT employees as well. In a 2012 study of turnover in the IT industry, James and Matthew (2012) discovered that job-related stress; factors that lead to job-related stress, lack of commitment to the organization, and general job dissatisfaction are key determinants leading to turnover. Ramos and Joia (2013) noted that IT employers in Brazil continue to have issues with

turnover, but also with turn away as IT professionals leave the industry altogether because of stresses from their career or lack of potential for growth in their specialization. Key themes between the studies show that the highly skilled employees in the IT industry continue to look for challenging positions where they are trusted and valued and have an opportunity to grow. In addition, several countries essential to the IT sourcing industry, such as India and China, use forced turnover methods to keep their workforce fresh or support turnover or moving to another company as a natural approach to career progression.

Ladelsky and Catana (2013) reviewed turnover from the employee perspective with a focus on voluntary turnover in the IT industry to analyzing topics such as why employees choose to leave a position and its effect on organizations. Workers with the IT industry continue to focus on completing training and gaining additional education, which leads to a need for more challenging work. Wang and Ma (2013) found that workers unable to innovate or use creativity in their job include a higher probability to turnover or have lower job satisfaction.

Another reason for high turnover is negative relationships between the workforce and management. Ghosh, Reio, and Bang (2013) found that 3 out of 4 workers experience workplace incivility in the United States. Incivility can be defined as rude verbal or non-verbal behaviors targeted toward team member (Ghosh et al., 2013). Ghosh et al. stated that experiencing incivility at work leads to higher voluntary turnover rates.

IT professionals require a significant amount of training to stay relevant in their field (Shih, Jiang, Klein, & Wang, 2011). In a study of 306 IT professionals, Shih et al. (2011) found that the pressure for continuous improvement and learning in the IT industry increases turnover intentions for IT professionals. The researchers also found that organizations who allowed for paced learning balanced with employees' workloads helped reduce increased the job stresses and turnover intentions. In addition, IT professions turnover more frequently because of the projected ease of movement in the industry. Over the last ten years, turnover rates in the IT industry increased, while the number of professionals entering the market decreased causing many companies desperate for talent (Lo, 2013). This perceived ease of movement caused workers who may not be looking to leave a company to decide to turnover to a new company (Lo, 2013).

Last, turnover of management, especially when dealing with consultant and offshore resources can have a negative effect on project schedule, cost, and untimely team turnover rates (Abdel-Hamid, 1992). Abdel-Hamid (1992) found that turnover of management and the succession plan for management had several unintended effects on project and team performance. Change of management amid complex strategic IT project often lead to change in staffing plans and philosophies, which could have negative impact on project teams (Abdel-Hamid, 1992). Abdel-Hamid suggested that the successor manager should be chosen from someone involved in the original project team who understands the projects goals and include a higher probability to have a commitment to the project and project team.

High turnover rates impact on project teams. In researching literature for this study, I found substantive literature on the negative effects that arise from high turnover rates within project teams. Eckardt, Skaggs, and Youndt (2014) found that the centrality of human action in service-oriented project teams causes increased knowledge loss from turnover than in manufacturing teams. In recent studies, several researchers looked beyond turnover's impact on the project team itself and expand to other units or functions of the business that could be impacted by team turnover. Call, Nyberg, Ployhart, and Weekley (2015) expanded on the collective turnover theory to recognize that collective turnover and staffing are part of the same flow, as increased turnover may also contribute to poor unit performance in staffing.

Many researchers have concluded that high employee turnover rates have a negative effect on team productivity and sustainability (James & Mathew, 2012). Duda and Zurkova (2013) found that it may take over 90 days for a new employee to reach the same level of productivity they replace. In the IT industry, the high complexity of project work, and required skillsets could result in even longer times for new employees to reach full productivity (Ghapanchi et al., 2013). In contrast, Park and Shaw (2013) stated that voluntary turnover leads to decreased productivity, but found that involuntary turnover more often lead to increased productivity and profitability.

In addition to the above issues, the pressure from decreased productivity and additional work also causes increase in work exhaustion on project teams. Work exhaustion also known as job burnout relates to decreased mental resources from overwhelming work related activates (Lo, 2013). When collective turnover exists on

teams during complex projects, those who turnover offload work to other project resources, which increases work exhaustion and causes additional turnover (Kim & Wright, 2007). Rutherford, Wei, Park, and Hur (2013) studied 292 Chinese sales people and found that many experienced emotional or work exhaustion led to increased job dissatisfaction. Multiple studies found that reduced job satisfaction leads to decreases in organizational performance and success (Bandura & Lyons, 2014; Fortado & Fadil, 2014; Kim & Wright, 2007).

Outside of the effects to team performance, productivity, and the quality of life for remaining team members, there is also a high cost associated with turnover of project team members. Within a study on workplace diversity and employee perception, Chrobot-Mason and Aramovich (2013) found that employee turnover remains challenging and costly at all levels and positions in an organization. Hur (2013) looked at the impact of turnover on municipal police departments and found that the cost to hire and train new members of the workforce were significantly greater than the cost to retain officers. Increased cost has the potential to have negative effects on projects budgets. An important part of measuring the success of a project is the return on investment (ROI) provided to the business. Increased turnover on project teams raises project costs and reduces the ROI originally attributed to a project (Wright & Bonett, 2013). This finding could lead to project cancellations, if the collective turnover costs cause the potential ROI to drop below the project costs (Wright & Bonett, 2013).

Last, collective turnover can lead to a reduced competitive advantage for an organization (Hancock et al., 2013). Turnover leads to knowledge loss for project teams,

and this continuous knowledge loss decreases a company's understanding of complex jobs, especially within the IT industry (Madsen, Bødker, & Tøth, 2015). Companies invest significant time and money into build a skilled workforce to support their organization, and turnover of resources hinders the company ability to operate effectively (Chrobot-Mason & Aramovich, 2013).

In a 2013 study, Kehoe and Wright looked at the impact of high performance human resource (HR) practices and found that high performing HR teams can significantly increase employee confidence and morale and reduce the voluntary turnover, thus mitigating a large portion of cost to the business. Another model proposed to limit the financial impact caused to project teams is the model of turnover and attachment motives, which includes the identification of eight organizational motives or forces leading to turnover and attempts to limit them (Maertz, Boyar, & Pearson, 2012). Maertz, Boyar, and Pearson (2012) worked with a group of 523 professionals across a range of jobs to see if the use of a turnover and attachment motivation survey can help PMs better understand and management turnover in an organization. The authors found that survey helped in understanding and predicting reasons for turnover, but additional studies remain needed to determine if the use of this technique could be affectively used to help prevent turnover.

Although a majority of researchers confirmed negative effects and challenges to team and project performance from turnover, several contrasting views exist. Ghapanchi and Aurum (2011) proposed that turnover brings positive effects to a company such as the ability to bring in lower costs employees and potential to promote employees who

stay with the company. In direct contrast, a meta-analytic study of employee turnover by Hancock, Allen, Bosco, McDaniel, and Pierce (2013) proved the significant negative correlation between turnover and team performance outweighs any potential company gains from replacing departing employees with better or less expensive ones, bringing new perspectives into the organization or preventing human capital stagnation. Additional challenges for hybrid sourced IT teams come from high turnover of workers on the offshore consulting side, matched with a lower turnover rate for full time employees on the project team. This discrepancy can lead to rework and retraining activities for the full time employees, and cause lower team moral, and or distrust between the project teams (Bhagwatwar, Bala, & Ramesh, 2014).

Strategies to reduce turnover in the IT industry. Companies spend significant resources attempting to retain employees (Hancock et al., 2013). Researchers found the costs significant for companies to find and train new employees; companies with high turnover have less success (Hancock et al., 2013). Prasannakumar (2015) stated that it is critical for managers to understand the nature and consequences of turnover, to be able to successfully implement strategies to reduce turnover. Shtern and Tzerpos (2012) found that large IT projects increase the difficulty to manage because of higher turnover rates of experienced IT professionals. To combat this high turnover rates, PMs need to put an increased focus on implementing strategies that help reduce turnover for their project teams. June, Kheng, and Mahmood (2013) found that workers able to utilize their natural talents and gained skills include a higher probability to have good job performance and motivation to stay in a company.

The IT industry is fast paced and constantly changing, promoting team learning and supporting the workforce with training and the ability to attend conferences to help motivate workers to perform better, and discourage them from leaving the team (Kappleman, Jones, Johnson, McLean, & Boonme, 2016). Another important factor in reducing turnover is the relationship the team has with its project manager or *boss*. Ghosh et al. (2013) found that when those in management positions are more civil to their team, there is a decrease in turnover intention on project teams. In addition to voluntary turnover, the IT industry also has significant amount situations that result in large involuntary turnover of staff, such as layoffs, downsizing, or cost savings measures (McManus & Mosca, 2015). McManus and Mosca (2015) noted that these large scale turnover events often leave behind workers put in situations where they complete more work under more stressful conditions, often dealing with low morale or fear of being cut, which can lead to additional turnover. Companies must promote a culture of trust, including holding open forums on situations leading up to turnover, and ensuring that top level actions support messages being shared with the team (McManus & Mosca, 2015).

Other studies looked at how pieces of employees' lives outside of work affect their likelihood to turnover. Huffman, Casper, and Payne (2014) surveyed over 5500 U.S. Army officers to determine what affect spouse career support had on turnover. The researchers reported that spouse career support decreased occurrences of officers feeling work interfered with their family and increased job satisfaction, which led to lower turnover (Huffman et al., 2014). Vanderpool and Way (2013) also found the work life

balance is critical to job satisfaction, and companies who put importance on managing work life balance have employees with lower job stress and anxiety.

Strategies to mitigate the negative effects caused by turnover in the IT industry. Turnover is a natural occurrence in business, and PMs understand there will always be turnover (Pee, Kankanhalli, Tan, & Tham, 2014). Within the IT industry, PMs developed successful strategies to mitigate the negative effects turnover has on an IT project team. Knowledge transfer is one technique organizations use to mitigate some of the knowledge loss, which occurs when members of the project team turnover or move to a new position (Kotlarsky, Scarbrough, & Oshri, 2014). Peng and Yurong (2013) proposed that organizations that outsource IT functions should require a knowledge sharing management model built with the vender to facilitate the stream of knowledge between the organization and the sourced company. Young Bong, Chang, and Vijay Gurbaxani (2012) suggested that if an IT knowledgebase is built between the sourcing company and vender selected it could provide productivity gains for both sides. Knowledge management and transfer is a critical theme in much of the existing literature on sourcing and turnover.

Pee, Kankanhalli, Tan, and Tham (2014) surveyed 138 IT project members on teams experiencing high turnover rates. The researchers found that use of electronic knowledge repositories and succession planning were the most effective practices to reduce the negative effects of turnover on project performance (Pee, Kankanhalli, Tan, & Tham, 2014). These suggestions to limit knowledge degradation from turnover are consistent with the results of Peng and Yurong (2013), which found that electronic

knowledge repositories are critical to successfully mitigating the challenges of high turnover. One of the greatest impacts to project teams from high turnover rates stems from decreased productivity and team performance. Prasannakumar (2015) found that cross training employees to understand more job functions/roles on the project team is an effective strategy to decrease the amount of productivity lost from turnover.

Global Team Dynamics

With an increasingly global marketplace, teams across the globe realize that to compete they need to recruit diverse global talent (Khan & Azeem, 2014). Creating a global team gives PMs the ability to draw skills and talent from a pool of resources that may not be available in one geographic location (Neeley, 2015). Another major benefit of global team in the IT industry is the cost of development talent, significantly cheaper in countries such as India and China than in the United States (Neeley, 2015). Global teams also give project teams the ability to function on a 24-hour work day, having team members in different areas of the world allows the team to functions and produce work at all hours of the day. This realization is very important for production support positions and call center operations that require someone to be available at all hours. Three key themes within global team dynamics are cultural impacts on the team, communication within team members, and managers and challenges for global teams.

Global managers have considerable insight into team culture and the impacts of turnover on team performance (Niederman & Tan, 2011). Napier, Keil, and Tan (2009) found successful IT PMs possess strong communication, leadership, and systems

development skills. These skills are crucial for managing knowledge loss, and having mastered these skills will help participants answer the central research question.

Cultural Impacts. Global teams include team member located in culturally diverse areas all over the world. This culture can impact the project team in both positive and negative ways, critical for business leaders to understand and manage cultural differences (Khan & Azeem, 2014). In a study of Indian IT associates, Deery, Nath, and Walsh (2013) found that a significant portion of training focused on teaching the employees to mask their accent and change their name or persona to better fit the western culture. While this approach may help onshore or U.S. based employees communicate with Indian based associates, if taken too far, it can offend the workers and cause turnover or poor moral.

Communication. Good communication is essential for project success (Susser, 2012). Global teams see increased challenges for implementing good communication practices because of cultural and language barriers, time zone differences, and challenges of working in different geographic locations (Yagüe, Garbajosa, Díaz, &González, 2016). Zaugg and Davies (2013) found three essential soft skills needed to build successful communication plans in global team, they include: choosing and using quality virtual communication tools, refining communication skills, and the scheduling of time to build trusting relationships. Communication plays a key role in communication by addressing global problems through building resilience, forming partnerships, enhancing intercultural communication, negotiating conflicts peacefully, and striving for social equity (Ziyu, Buzzanell, Min, Mitra, Kai, & Huijun, 2015).

The increase in global teams will change the way the IT PMs look at communication, and how they train their workforce. Martinez (2015) proposed that new workers entering the global workforce should be given educational opportunities to understand the written and verbal communication practices in international environments. Agile software development teams relay on in person stand up meetings and strong communication to insure project teams meet deliverables. Global team challenges limit team's ability to effectively communicate project status, and require additional project management oversight (Yagüe et al., 2016). Licorish and MacDonell (2015) noted that global teams more often have software developers who dominate conversations, which could lead to a decrease in team performance and moral. Communication is a critical success factor for IT projects. Existing research shows that leaders need to adjust communication plans and practices based on global dynamics. In addition, teams that communicate well and complete projects successfully have lower turnover than teams who have poor communication and project failures (Norizah, Amir, Saw, & Muhammad, 2014)

Challenges for Global IT Teams. Despite the many benefits of utilizing global teams, there are also some significant challenges. Saldaña-Ramos, Sanz-Esteban, and García Amescua (2014) found a lack of understanding of team goals could lead to team member isolation. Also, language barriers and the method of communication the team uses to communicate may lead miscommunication or improper understanding of the message (Morgan, Paucar-Caceres, & Wright, 2014). Another challenge noted by Saldaña-Ramos et al. (2014) is that differences in project structure and lifecycle can add

unnecessary process or confusion to the project. Another common challenge noted in the literature is that ineffective knowledge management practices between global sites can lead to duplication of work, knowledge loss or lack of overall project knowledge (Neeley, 2015). Paul, Drake, and Liang (2016) suggested that global team leaders need to limit the formation of sub teams within geographic locations, which hurt team cohesion and trust.

Outsourcing is critically important to many developing countries looking to improve the quality of life and career opportunities. For outsourcing to continue to be successful, managers need to have a better understanding of how outsourcing effects organizational culture, and the difference in turnover rates for team members in each geographic location (Dwivedi, Kaushik & Malodia, 2014) There are a substantive number of articles that speak to the negative effects continuous turnover has on IT project teams (Deery, Nath, & Walsh, 2013; Janani, 2014; Simo'n et al., 2014). Developing strategies to mitigate these challenges may help IT leaders improve team performance to mitigate negative effects of turnover, supporting the need for this study.

Transition and Summary

Section 1 of this research included the outline of the problem statement and research topic. In addition, discussion included a conceptual framework of the qualitative case study approach versus other potential options. Section 1 outlined assumptions, limitations, and delimitations related to the study, and outlined the significance of the study and potential impacts to social change. Last, Section 1 included an expansive review of current existing research on sourcing, turnover, and global team dynamics. Section 2 includes information on, my role as researcher, the population and sample size,

and explain the approach used to collect, analyze, and protect the data. In Section 3, I will complete data collection and analysis and report results and findings of the study.

Section 2: The Project

In this study, I explored strategies that IT business leaders used successfully to mitigate the negative effects of high consultant turnover on IT project teams that include both U.S. IT professionals and offshore consultants. These hybrid-sourced teams experience additional challenges beyond those encountered by exclusively local-sourced IT project teams to complete complex IT projects successfully due to the differences in turnover rates, as well as turnover transition practices. To collect the data for this study, I interviewed IT PMs, along with U.S. members of the teams they manage, from IT companies in northeastern Pennsylvania. In addition, I collected data from company documents such as employee knowledge transfer plans, retention reports, and lessons learned documents. Understanding knowledge transfer practices of successful IT teams may help business leaders improve company knowledge transfer and turnover practices, as well as improve team dynamics and increase the number of successful projects. In this section, I discuss the role of the researcher, provide an overview of the participants, lay out the research method and design, explain the population and sampling approach, and address the notion of ethical research. Also included are details on the data collection instruments, collection technique, and data organization. Finally, I will explain the concepts of reliability and validity relative to this research study.

Purpose Statement

The purpose of this qualitative case study was to explore the strategies IT PMs use to mitigate the negative effects of high levels of consultant turnover on hybrid-sourced IT project teams. The targeted population included six IT PMs who manage

hybrid-sourced IT teams in a corporation that employs more than 1,000 employees, located in northeastern Pennsylvania. The implication for positive social change includes the potential to reduce turnover and knowledge loss in hybrid-sourced teams, which may decrease workplace stress and improve global team dynamics. Limiting negative impacts due to collective turnover of consultants may lead to a healthier mental state for employees, and increase multicultural acceptance within project teams. Successful hybrid-sourced IT teams could call for more complex positions for US workers which may lead to higher paying jobs and more job security for families of those employed in the IT industry.

Role of the Researcher

The role of the researcher in the data collection process is to gather evidence, create and execute interviews, and analyze and interpret produced data into findings (Yin, 2003). I served as the primary instrument for data collection and conducted semistructured interviews with participating IT PMs. In qualitative research, it is common for the researcher to act as the primary instrument for data collection (Olivero et al., 2013). To collect data successfully, researchers must actively manage bias, create engaging interview questions utilizing an appropriate interview protocol, and be mindful of ethical factors of the research (McDonald, 2014). As an IT PM with experience in the geographic region where the study will take place, I used my professional experiences and knowledge of the industry to develop relevant interview questions.

I currently hold a position of senior IT project manager at the company chosen for this research. McEvoy (2002) stated it can be appropriate to interview colleagues if the

researcher avoids bias and acts in a professional manner. To avoid basis, my direct reports or team members who functionally report to me did not participate in the study. I used my knowledge of the company along with published responsibilities of positions within the company to identify suitable participants. Before conducting interviews, I asked industry professionals to confirm the validity of interview questions. Professional experiences may help the researcher build a rapport with participants and assist the researcher in interpreting responses (Marshall & Rossman, 2011). In addition, I utilized an interview protocol to insure I provided a consistent experience for all participants and avoided basis while completing each interview.

Many researchers use practices outlined in the Belmont Report to ensure they adhere to the ethical performance standards of research (Ross et al., 2010). Three core principles of the Belmont Report are respect for participants, minimizing potential harm to participants, and equal selection of participants (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). I was cognizant of these principles while selecting participants and insured adherence with the principles outlined in the Belmont Report when interacting with participants.

Managing bias is a fundamental component of successful research. When researchers define their personal viewpoints and control personal basis, they are more successful at interpreting the views of others (Marshall & Rossman, 2011). Chan et al. (2013) stated researchers should collect data in a trustworthy and professional manner to avoid bias. To manage bias, I avoided asking leading questions and clarified ambiguous statements or terms with the participant, to insure interpretations were accurate.

Researchers use the qualitative method to explore and explain human behavior (Bailey, 2014). Interview protocols consist of questions for the participant along with the procedural components of the interview, such as scripts for what the researcher should say before and after the interview and prompts that the researcher might need during the interview (Jacob & Furgerson, 2012). The interview protocol extends beyond the interview questions to include procedural activities required to execute an effective interview (Jacob & Furgerson, 2012). I used an interview protocol to maximize the quality of the interview.

Participants

By conducting case studies, researchers gain a holistic view of a research topic from an extensive study of a single unit (Baškarada, 2014). Qualitative research requires smaller sample sizes than quantitative research, with five to 50 participants being an acceptable range if there is enough information to reproduce the study, and no new information can be obtained by having additional interviews (Fusch & Ness, 2015). Rowley (2012) explained that selecting more than 10 participants helps to ensure the accuracy of the research. In case study research, participants should be knowledgeable on the topic and able to provide adequate answers the research question (Mariotto, Zanni, & de Moraes, 2014).

Eligible potential participants consisted of PMs who have managed a hybrid-sourced IT team at the selected location in Northeastern, Pennsylvania. I selected IT PMs of hybrid-sourced IT project teams, who had experienced success in limiting impacts of collective turnover, to participate. Schlichter and Persson (2014) explored IT teams that

utilized a mixture of full time IT associates and outsourced consultants that formed a hybrid-sourced IT team.

I received written consent from the company leaders prior to conducting the study. I received approval from Walden University Institutional Review Board to conduct the study (IRB# 07-13-17-0417792), and then reached out for formal approval from the company leaders to contact IT PMs. After the site leader provided approval, I used my professional network to reach out to qualified participants, explained the study, and asked if they or their colleagues would be willing to participate in the study. Steelman, Hammer, and Limayem (2014) suggested researchers are most effective in engaging participants for qualitative studies when those participants have been deliberately selected.

I selected six IT PMs of hybrid-sourced teams to participate in the study. I did not inform participants of the identity of other participants in the study. Swauger (2011) suggested researchers should share their intentions and the purpose for the study with each participant to build a working relationship. In research, potential participants should be informed that their participation in the study is optional and that all interviews will be confidential (Jacob & Furgerson, 2012). I explained to all participants the purpose of the research and offered to provide a final copy of the study once the research was completed. Abbe and Brandon (2014) commented that appearance and positive interpersonal interaction helps to build a rapport with potential participants and can improve the quality of the interview. I discussed the purpose of the study and my plan for the interview with each participant. The interviews were semistructured, with all

predetermined questions being open-ended. Conducting semistructured interviews allows the interviewer to pose additional questions to address topics that emerge from the dialogue between the interviewer and interviewee (Doody & Noonan, 2013). The interaction helps build a rapport between the participant and interviewer while helping the interviewee feel more comfortable sharing information (Doody & Noonan, 2013). I utilized semistructured interview questions to help build a working relationship with participants.

Research Method and Design

Before choosing a research method and design, researchers should analyze all possible research methods and select the method which will allow the answer the research question to emerge fully (Hayes, Bonner, & Douglas, 2013).

Method

I chose a qualitative approach as the most suitable method to conduct this research. The qualitative method offers a structured approach for researchers to probe into issues, provide insights into problems, or develop hypotheses for future research (Sarker et al., 2013). Qualitative researchers explore a specific phenomenon with the hope of providing insight into subjects' experiences (Kramer-Kile, 2012). A qualitative research method is suitable for this study because there are unknown expectations, problems, and potential solutions for addressing turnover on IT teams, and applying a qualitative method will enable me to explore and understand this problem. In contrast to qualitative research, quantitative research is grounded in data and statistics and allows

researchers to collect information so that relationships and correlations of data can be analyzed (Riley, n.d.).

Quantitative research was not appropriate for this study because there was no measurable data being produced or analyzed. Researchers use mixed methods research to combine both quantitative and qualitative research in a meaningful way (Tashakkori & Teddlie, 2003). Turner (2013) stated that a mixed methods approach allows researchers to examine the same phenomenon using both quantitative and qualitative methods, which increases the validity of research findings. Despite documented benefits of using multiple research approaches for IT research, the complexity and time needed to complete both quantitative and qualitative elements would be overly burdensome to apply to an industry that is constantly changing (Venkatesh et al., 2013). In addition to the cost and time restrictions, mixed methods research was not appropriate because there was no measurable variables to compare relationships or to analyze, which eliminates the need for a quantitative component.

Research Design

A case study approach was appropriate for this research because there is a need to gain a greater understanding of the strategies business leaders implement to mitigate turnover on hybrid-sourced IT projects using multiple data sources (Yin, 2012). As Yin (2003) explained, case studies allow researchers to illustrate a set of decisions with the goal of explaining why they made the decisions, how they implemented the decisions, and the project results achieved based on those decisions. I considered two other

qualitative designs for this research—phenomenological and narrative—before rejecting them in favor of the case study design.

In a phenomenological approach, researchers attempt to learn about a phenomenon through lived experiences of subjects (Sarker et al., 2013). A phenomenological approach was not suitable for the study because the proposed research required the use of multiple sources of data, including secondary data related to turnover, for proper analysis. In studies involving a narrative research design, researchers use stories of participants' experiences to explore a topic (Soin & Scheytt, 2006). This approach was not be appropriate because stories alone will not produce sufficient data to build strategies to help all business leaders.

To ensure all relevant information has been collected from a sample in qualitative research, the researcher must achieve data saturation. Data saturation occurs when no new information is being collected from additional participants within a sample (Marshall, Cardon, Poddar, & Fontenot, 2013). Houghton, Casey, Shaw, and Murphy (2013) concurred with Marshall et al. stating the lack of any new emerging data is evidence data saturation has been reached. Malterud, Siersma, and Guassora (2015) proposed that the more relevant information participants have on the topic the lower numbers of interviews are required to reach saturation. To ensure data saturation in my study, I continued to interview participants until no new information emerged and data became repetitive.

Population and Sampling

The target population for this study was 55 IT PMs who manage teams consisting of both full-time U.S. employees and offshore consultants who have over 5 years' experience and success limiting the impact collective turnover has on hybrid-sourced IT teams. I chose purposeful sampling to select participants for the study. Researchers use purposeful sampling when they seek to gain access to key contributors of a given field who can provide insight into information-rich cases (Suri, 2011). Purposeful sampling is appropriate for qualitative studies such as case studies, in which researchers explore participants' perspectives on a topic (Gentles, Charles, Ploeg, & McKibbon, 2015). Palinkas, Horwitz, Green, Wisdom, Duan, and Hoagwood (2013) stated that purposeful sampling is appropriate for information-rich case studies.

My sample included interviews with 6 IT PMs. The sample size for qualitative research is often much smaller than the required in quantitative research (Marshall, Cardon, Poddar, & Fontenot, 2013). Large sample sizes are not required because the amount of information the sample holds is much greater, and the aim of the study, use of an established theory, quality of the interview and data analysis strategy could lead to smaller adequate sample sizes (Malterud, Siersma & Guassora, 2016). Two key considerations for determining the appropriate sample in qualitative research are whether the chosen sample size is appropriate and whether the sample size is adequate to allow the researcher to sufficiently answer the research question (O'Reilly & Parker, 2013).

Data saturation is the point at which additional interviews no longer yield new information (Fusch & Ness, 2015). Malterud et al., (2015) suggested researchers should

continue to interview qualifying participants until reaching data saturation. Von Hagel and Miller (2011) reached data saturation after 20 interviews while researching turnover in the IT industry. To ensure data saturation, I continued to interview qualifying IT PMs until no new information emerged.

Interviews should take place in a professional setting that is convenient for the participants (Irvine, Drew, & Sainsbury, 2013). Killawi, Khidir, Elnashar, Abdelrahim, Hammoud, Elliott and Fetters (2014) noted that interviews should take place in environment convenient for the participants. To provide convenience for participants, I conducted the interviewees at the chosen company in a secure conference room. Participants were given the choice of completing the interview within the company, or offsite, and all chose to complete the interview onsite in a secure conference room. Asking for input on the location of the interview can help participants become more comfortable and trusting of interactions with the researcher (Doody & Noonan, 2013). I informed participants that the data resulting from the interview would be anonymous and procedures would be in place to conceal their name, company, and distinguishing characteristics. I also mentioned that interview would be scheduled to last 30 minutes.

Ethical Research

To assure the ethical protection of participants of this research, I sought permission from the Walden University Institutional Review Board and abide by three principles of the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). I presented each participant with a consent form and explained that participation was completely voluntary. Providing

informed consent forms allows participants to understand all aspects of the study before deciding to participate (Schrems, 2014). As indicated in the informed consent letter, participants have the opportunity to withdraw from the study by contacting me at any time. To ensure ethical research practices, researchers must protect the confidentiality of all participants (Wolf, Patel, Tarver, Austin, Dame, & Beskow, 2015). I clearly explained the goals of the interview and expectations of the participants prior to initiating interviews with each participant.

To ensure confidentiality for both the company and participants, it is important to conceal the identities of the participants (Cox, Drew, Guillemin, Howell, Warr, & Waycott, 2014). To protect the confidentiality of all participants involved in the study, I will not include names or references to the company in the results. The selected company will be assigned the fictitious name of Company ABC, with participants identified as ABC PM 1, ABC PM 2, and so on. I stored electronically signed consent forms in a secure area on a password-protected storage device that will be kept in a fireproof safe to which only the researcher has access for 5 years. I also stored wet-signed consent forms in the fireproof safe. After 5 years, all consent forms, transcribed interviews, and recordings will be destroyed in a safe and secure manner. Participants did not receive any incentive for participation in the study to ensure that each participant's goal is to help provide new information on an important topic.

The principles of the Belmont Report include respect for all participants, beneficence, and justice (Wallace & Sheldon, 2015). I sought permission from leaders of the selected company to collect data from IT PMs employed by the company within the

company facilities before scheduling interviewees with participants. Once I received permission to proceed with the study, I sent an invitation to participate in the study to prospective participants.

Data Collection Instruments

I was the primary instrument for data collection. Researchers themselves are often the most effective tool for collecting data in qualitative research (Palinkas et al., 2013). Bailey (2014) stated that quantitative research relies on proven data collection instruments, while qualitative research relies on the researcher's preparation and experience. Case study research requires researchers to collect data from two or more sources (Yin, 2015). I used two data sources for collecting data, including interviews with IT PMs and secondary data from supporting documents such as knowledge transfer plans and training documents provided by participants.

The first data source that I used for data collection was face-to-face interviews. Interviews are an effective way for researchers to collect data in qualitative research (Yin, 2011). I asked semistructured interview questions to IT PMs to collect data. Semistructured interviews involve posing predetermined open-ended questions and additional follow-up questions to delve deeper into topics revealed during conversation (Doody & Noonan, 2013). Interviews consisted of six semistructured questions, as incorporated in the interview protocol (see Appendix B). I followed the interview protocol to promote a positive professional relationship with each participant and to extract information essential to answer the central research question. I took advantage of the interaction between the interviewer and participant in semistructured interviews to

ask follow-up questions, clarify answers, and dig deeper into the experiences of the participants. After receiving participants' permission, I made an audio recording of each interview for subsequent transcription.

The second data collection technique for this study will be secondary data. I gathered secondary data through from project success and quality metrics provided by project managers as well as document review of knowledge transfer plans and training documents. As technology advances, more data is being collected by organizations and in turn existing data is more often used in research (Johnston, 2014). Researchers can use company documents to help triangulate the data which the researcher can use to gain different perspectives and better understanding of events discussed in interviews (Houghton, Casey, Shaw, & Murphy, 2015). I used company documents including knowledge transfer plans to help triangulate the themes gathered from the interviews.

To ensure the reliability of the data collected for the study, I used member checking. Member checking allows the researcher to ask for clarification from the participants who provided the data, to ensure the resulting interpretation accurately reflects what was intended (Chang, 2014; Loiselle, Profetto-McGrath, Polit, & Beck, 2010). Member checking may take place during the interview or after analysis has been completed, and can include the researcher asking participants for confirmation on patterns found by the researcher (Chang, 2014). I utilized member checking during and after interviews to give participants the chance to confirm and correct my interpretation of their answers.

I developed an interview protocol to ensure the consistency of all interviews (Appendix B). An effective interview protocol contains a script of what the interviewer will say before beginning and after concluding the interview, along with notes to collect informed consent and what information is important to the research (Jacob & Furgerson, 2012). Turner (2010) stated the interview protocol should also contain steps for testing the recording equipment prior to starting the interview, as well as notes for the researcher to monitor the recording device during the interview to ensure it remains functional. I created an interview protocol as a guide for what I need to include in each interview to ensure participants have a consistent experience.

Data Collection Technique

I utilized interviews and secondary data found in company success and quality metrics, and document review of knowledge transfer plans and training documents as the primary sources of data. The primary means of data collection for qualitative researchers is the use of interviews (Yin, 2009). I conducted face-to-face semistructured interviews to collect data for this research while adhering to an interview protocol. Semistructured interviews allow researchers to ask predefined questions with the freedom to ask follow-up questions when needed (Doody & Noonan, 2013). In case studies, data must come from multiple sources of evidence (Baškarada, 2014). In addition to data collected from interviews, I requested that participants provide company documents including project quality and success metrics, transfer plans, employee retention reports, and lessons learned documents to allow for triangulation of the data resulting from interviews.

An advantage of conducting face-to-face interviews to collect data is the ability for the researcher to adjust questions and ask clarifying questions when needed (Irvine et al., 2013). Face-to-face interviews allow researchers to take notes on body language and nonverbal actions of participants during the study (Jacob & Furgerson, 2012). A disadvantage of this approach is that added spontaneity may cause the researcher to focus on developing follow-up questions rather than taking notes, which are a critical component of the interview process (Irvine et al., 2013). Another disadvantage of conducting interviews is managing bias; in face-to-face interviews researchers may have a difficult time controlling reactions or emotions in response to interviewees' comments or answers (Cridland, Jones, Caputi, & Magee, 2015).

In addition to collecting data through interviews, I also collected data from secondary data available in knowledge transfer plans and training documents. Review of secondary data in qualitative case study research has both advantages and disadvantages. Reviewing documents allows researchers to confirm if the results of completed interviews coincide with company policies or tactics outlined in the internal documents (Cronin, 2014). In addition, document review can serve as a good source of background information, which can help a researcher better understand the participant (Centers for Disease Control and Prevention, 2009). Another advantage of using secondary data is the ability to triangulate data between the two sources, and see the phenomena in different dimensions. A disadvantage of reviewing secondary data is the data could be out of date or no longer relevant to the company strategy. Jacobson, Pruitt-Chapin, and Rugeley

(2009) mentioned that when a researcher uses document review for data collection and analysis, the researcher must be aware that data may be out of date or inaccurate.

I requested approval to collect data for this study from the Walden University IRB. After receiving approval, I reviewed the list of potential prospects that have been made aware of the study, and completed a test to ensure potential time allocated for the interviews was sufficient. Researchers should make initial contact with the potential participants, explain the study, the interview process and the methods used to protect their identity and answers (Doody & Noonan, 2013). Written consent is required from all confirmed participants. The researcher and participant will review the plan for the interview, and ensure the participant would still like to participate. Once the participant was comfortable with the plan, I continued with the interview in a professional and respectful manner.

I followed the interview protocol to perform each interview, following the same pattern with every participant. Each interview lasted approximately between ten and thirty minutes. It is important for the researcher to create an interview environment that is appropriate for all participants (Turner, 2010). To collect data, I met with qualified participants in a location convenient to them at a predetermined time. At the start of each session, I will set up and test the recording equipment. I also re-review the informed consent information with each participant. In addition to asking interview questions, I took notes of physical actions and emotions participants display during answers (Jacob & Furgerson, 2012). Turner (2010) suggested researchers ask one question at a time, regularly check the recording device to ensure it is working, avoid emotions or

expressions that may alter the way a participant answers the question, and maintain control of the interview.

After the interview is complete, I transcribed the recording and send the transcribed interviews to the appropriate participant for his or her review and confirmation of accuracy. This process, called *member checking*, is a suggested method to improve the quality of the research (Loiselle et al., 2010). Member checking is also an effective way to prove the interpretive validity of a study (Morse, Barrett, Mayan, Olson, & Spiers, 2002). Once the participants have confirmed the validity of the interview, I will upload the completed transcriptions into QSR International NVivo 10 data analysis software.

Data Organization Techniques

To ensure the success of the study, I used proper data organization and record-keeping practices. I transcribed audio interviews directly into Microsoft Word documents and labeled each with a code assigned to each participant. I then loaded the data into NVivo software to organize and analyze data compiled from the interviews. Each participant was given a code that represents him or her in the study, for example, ABC PM1, ABC PM2, and so on. Codes allow researchers to mask the identity of participants (Marais, 2012). To ensure ethical compliance, I removed all participant information prior to archiving the data (Vaitkevicius & Kazokiene, 2013). Jacob and Furgerson (2012) suggested researchers should keep folders containing the transcripts of recordings along with any notes taken during the interview.

Researchers must maintain good data organization practices to protect participants. Wolf et al. (2015) stated confidential participant information should be stored in a secure location for 5 years after a study is completed, and then destroyed. I did not store any confidential information on big data, such as cloud storage, to ensure there is no potential for data security leaks (Inukollu, Arsi, & Ravuri, 2014). I stored the transcripts on a password-protected USB device, along with folders including transcripts and notes from each interview, in a fireproof safe for 5 years.

Data Analysis Technique

Case study research requires the researcher to collect multiple sources of evidence (Baškarada, 2014). There are four core types of triangulation in research: data, investigator, theory, and methodological (Hussein, 2015). I used methodological triangulation for this research. Methodological triangulation involves using more than one method to collect data and helps to confirm findings, provide more comprehensive data, increase validity, and enhance understanding (Hussein, 2015). Methodological triangulation helps researchers analyze across method, which applies both quantitative and qualitative data collection methods, or within method, which applies more than one data collection method from the same design (Houghton et al., 2013). I applied within-method methodical triangulation through the use of interviews along with secondary data collected from company documents such as employee knowledge transfer plans, retention reports, and lessons learned documents.

I collected data using the defined interview protocol (see Appendix B) with all confirmed participants. After initial data collection was complete, I began data analysis.

Data analysis consists of assessing the data in a way that reveals patterns and themes, which can help answer the central research question (Yin, 2011). Marais (2012) stated data analysis ensures the responses of opened-ended questions are accurately reflected in the results.

Initially, I organized the data into broad categories. After the initial grouping, I reviewed each broad category to find themes. While finding themes, if detailed information did not fit within one of the original broad categories, new categories were created. Finding detailed responses and themes that were provided by multiple participants will help identify strategies business leaders can implement to mitigate the negative effect that high consultant turnover has on hybrid-sourced IT teams. To complete the analysis, I utilized Yin's (2011) 5-step data analysis method (see Figure).

The 5 steps include compile data, dissemble data, reassemble data, interrupt data, and conclude on results. The first step consisted of gathering data collected from the semi structured interviews, and secondary data found in the company documents, project success and quality metrics, and training and knowledge transfer plans to compile a data set. Next, I disassembled the data and code the different concepts into groups. Researchers work to dissemble data in a similar fashion to solving a jigsaw puzzle, where one might sort the pieces into frame pieces, middle pieces, picture pieces in order categorize them (Woods, Paulus, Atkins, & Macklin, 2016). Third, I used NVivo 10 software to reassemble the data, and find patterns and key themes throughout all participant answers and supporting documents. Once themes emerge, I interpreted the data, and examined how the themes relate to the tenants of the CET theory, which is the

conceptual framework for the study. I used the patterns and themes to interrupt the data and returned to compiling, dissembling, and reassembly new data when needed. Lastly, I drew conclusions from the data after reaching data saturation and uncovering all themes. I also compared this study results with results from other industry studies on similar topics, and suggest topics for additional research where necessary.

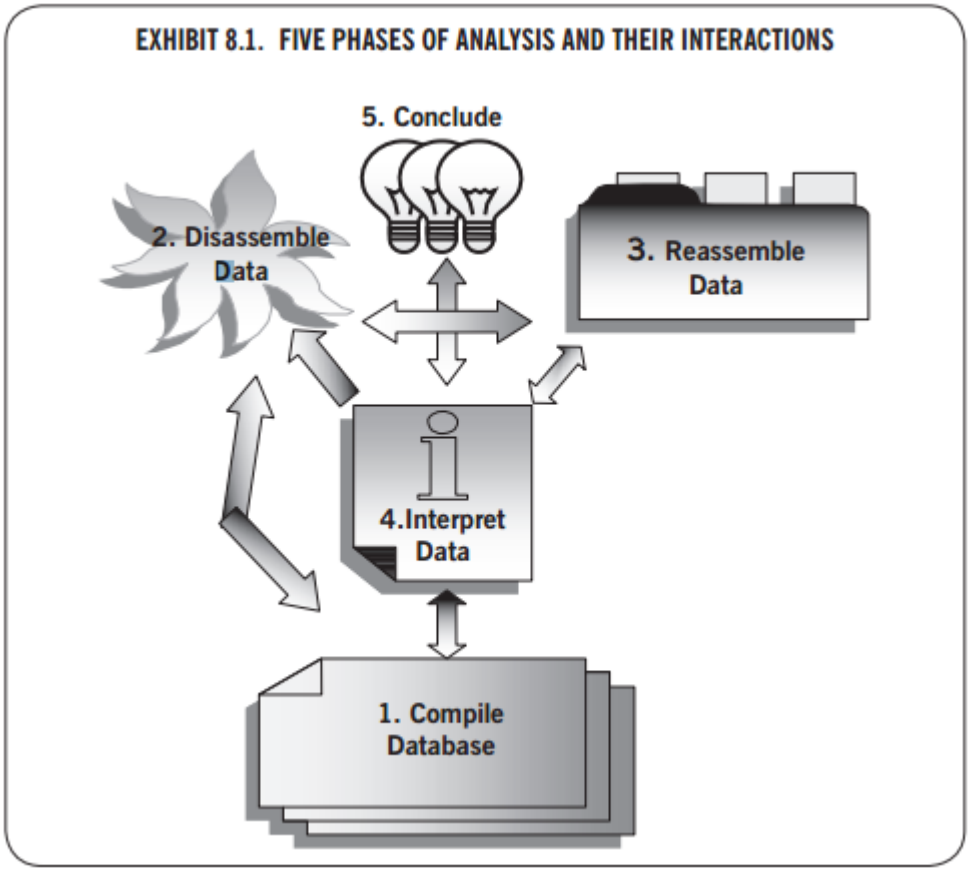

Figure 1. Five phases of analysis and their interactions. Adapted from *Qualitative Research from Start to Finish,* by R. Yin, 2010, p. 71. Copyright 2010 by Guilford Press.

I used QSR International NVivo10 software to load transcribed Microsoft Word documents. After loading the data, I used the software to organize the information. Once data is successfully loaded into the data analysis software, researchers should code the

data by disassembling the data into groupings based on descriptions or keywords (Wilson, 2012). Once I coded the data, I applied the functions of QSR International NVivo 10 software to the coded data to identify patterns or themes in participants' answers.

Computers and software programs are increasingly used for data analysis in qualitative research (Cope, 2014). Thorough data analysis is critical to understanding the research topic. I used QSR International NVivo 10 software to assist in aligning collected data with existing literature on the topic (Woods, Paulus, Atkins & Macklin, 2016). The use of software such as NVivo helps researcher complete a more thorough analysis of the data collected (Woods, Paulus, Atkins, & Macklin, 2016; Sotiriadou, Brouwers, & Le, 2014).

The use of conceptual framework allows researchers to create a link between existing literature on a topic, the chosen methodology, and the results of the study (Borrego, Foster, & Froyd, 2014). Nyberg and Ployhart (2013) proposed the context emergent turnover theory, according to which continued collective turnover reduces human capital resources over time. I examined data collected for this study and compared the results with the principles of context emergent turnover theory. Leaders of IT organizations using a hybrid sourcing model have to battle constant turnover that is caused by different cultural circumstances. I analyzed data for recurring themes and compared these results to identified IT turnover studies and determined the results of the proposed study are consistent with previous findings.

Reliability and Validity

In qualitative research, researchers are asked to prove the reliability and validity of a study through discussion of four primary principles: dependability, credibility, transferability, and confirmability (Noble & Smith, 2015). These principles allow the researcher to prove the approach and results of the study can be trusted. Data for qualitative research is often gathered through interviews and require different approaches to prove reliability and validity than quantitative approaches. Member checking and data triangulation help researchers ensure reliability and validity.

Reliability

The reliability of a study refers to the ability for researchers to reproduce the settings and conditions of a study and obtain similar results (Grossoehme, 2014). Documenting all stages of data collection, data analysis, and data interpretation contributes to the reliability of the study (Lewis, 2015). Qualitative researchers implement member checking to increase the reliability of the study and prove the dependability of the research. Member checking is the process of providing the researcher's interpretations of data to the participants who provided the data, allowing for corrections or clarification before releasing the study to ensure accuracy (Loiselle et al., 2010). I provided interpretations to participants prior to completing analysis.

Validity

In research, validity refers to various measures used to confirm the accuracy of research findings (Leung, 2015). Noble and Smith (2015) recognized three key types of validity in qualitative research: descriptive validity, interpretive validity, and theoretical

validity. Descriptive validity allows researchers to confirm the factual accuracy reported by the researcher. Interpretive validity refers to the researcher's ability to accurately interpret the views, thoughts, experiences, and intentions of the participants. Theoretical validity relates to the degree to which a theory or theoretical explanation that develops from the study applies to the data. Qualitative researchers should apply credibility, transferability, and conformability to the study to ensure the validity of the research.

Credibility helps to insure the results of a study are believable (Baskerville & Wood-Harper, 2016). To achieve credibility, I implemented member checking. Member checking consists of providing interpretations derived from the interviews to participants for confirmation (Loiselle et al., 2010). Even with improved technology, transcripts are never completely accurate, so it is critical to verify the results with the participants to ensure accuracy (Jenks, 2013).

Transferability reveals the extent to which the findings of a study apply to other situations (Shenton, 2004). It is impossible for researchers to conduct research in all possible settings, with all participants, so it is sometimes necessary to apply the results of one study to a similar situation (Burchett, Mayhew, Lavis, & Dobrow, 2013). This research relates to turnover of IT professionals, but the merits of the study could easily apply to any industry that utilizes offshore workers, such as call centers, or customer service.

Confirmability is the act of confirming that the results are due to the information provided by the participants and not tilted by the characteristics or preferences of the researcher (Houghton et al., 2013; Shenton, 2004). Researchers should provide vivid

descriptions of the process used for data analysis and any assumptions made during analysis (Prion & Adamson, 2014). I ensured conformability through bias management.

Data saturation is the act of continuing interviews until a researcher stops hearing new information. Marshall et al. (2013) suggested researchers should continue to interview qualifying participants until data saturation is achieved. Using methodological data triangulation as part of a case study allows researchers to achieve data saturation with fewer participants than other methods (Mason, 2010). I crosschecked information within knowledge transfer plans and training documents provided by the participants with the answers that I receive from interviews to discover and verify themes. In order to achieve data saturation, I continued to interview IT PMs until the information became repetitive and additional interviews do not yield new information.

Transition and Summary

In Section 2, I explored my role as the researcher and the research method and design, including reasons for choosing a qualitative case study approach. In addition, I described the population for the study and the criteria for participants that will be invited to participate. Lastly, Section 2 included a discussion of data collection methods, the data analysis techniques and data organization that will be used to organize and interpret data and the ways I will handle reliability and validity. In Section 3, I will include: a presentation of the findings, applications of the findings for the professional community, implications for social change, recommendations for action, recommendations for further study and reflections. I will end Section 3 with a final summary and conclusion of the research.

Section 3: Application to Professional Practice and Implications for Change

Overview of Study

In Section 3, I present the study's findings. In addition, I cover potential applications to the business profession, and possible implications for social change. This section also includes potential applications for IT project managers, and suggests areas where additional research may be needed. Last, I reflect on the experiences in completing this research, and conclude with an explanation of the importance of implementing strategies that reduce the negative effects collective turnover of consultants have on hybrid sources IT teams.

The purpose of this qualitative case study was to identify strategies successful IT PMs have used to limit the impact that collective turnover of consultants has on hybrid-sourced project teams. To explore effective strategies used to limit or reduce collective turnover, I interviewed six IT PMs with at least 2 years' experience managing hybrid source IT project teams that had experienced collective turnover of consultant resources. In addition to in person semi structured interviews, I also collected and reviewed secondary data from, company onboarding documentation (SD1), company knowledge transfer plans (SD2), company turnover reports for 2016, 2017 (SD3),domain expert documents (SD4) and project success metrics (SD5).

I used purposeful sampling to recruit participants. Each participant received an email to introduce the study, where I asked if they would like to participate in the study; I also supplied them with an informed consent, which each participant signed prior to taking part in the interview. All interviews took place on site at the company in a private

conference room. I asked seven interview questions to explore strategies successful IT project manager use to limit the impact collective turnover of consultants has on the project team (see Appendix B).

Presentation of the Findings

The purpose of this qualitative case study was to answer the central research question: what strategies do successful IT PMs use to limit the impact that collective turnover of consultants has on hybrid-sourced project teams? To explore this question, I conducted six interviews with IT project managers at a Fortune 100 company. Each participant had a minimum of 5 years managing IT project teams that consisted of both full time U.S. based employees, as well as off shore consultants. I asked each participant if they were comfortable with audio recording the interviews; all accepted. The interviews were transcribed into Microsoft Word documents to compare the results of the transcription to the audio files to ensure accuracy. Once all transcripts matched the audio recording, I loaded the transcripts into NVivo 10 to complete coding and data analysis and find themes.

From analysis of interview responses and secondary data provided by participants, three themes emerged, to include:

- Collective turnover of consultants decreased team performance,
- Improving global team dynamics reduced the negative impact of collective turnover, and
- Utilizing knowledge transfer tools and project documentation practices reduced the negative impact of collective turnover.

Theme 1: Collective Turnover of Consultants Decreased Team Performance

The first theme that emerged from data analysis was that collective turnover of consultants led to decreased team performance. All six PMs stated that collective turnover of consultants had a negative impact on essential project activities and on the project team, which led to decreased team performance. From analysis of interview responses, several common types of impact resulting from collective turnover emerged as items that led to decreased team performance. To explain what strategies PMs designed and implemented to address the negative impact collective turnover has on the project team; the participants first outlined the impact collective turnover of consultants had on team performance. The participants supported the definition that collective turnover refers to a workforce's loss of knowledge, skills and abilities over time (Heavey, Holwerda, & Hausknecht, 2013). Through analysis of the responses and secondary data, it is clear, collective turnover negatively impacted the PMs teams in different ways, but all six PMs experienced from one to all of the six types identified in my research, including: (a) knowledge loss, (b) quality issues, (c) increased work to onboard new associates, (d) work exhaustion, and (e) delayed deliverables.

One type of negative impact that collective turnover of consultants had on team performance was knowledge loss. All six PMs interviewed found that poor knowledge transfer protocols lead to knowledge loss for hybrid-sourced teams. This impact was especially noted when consultants left with little notice and U.S. team members did not help the transition to a new consultant resource. PM 4 noted that many teams lack appropriate levels of cross training, so when a critical resource leaves the team, pressure

exists to complete knowledge transfer quickly, which often does not provide enough time to transfer the knowledge for an application or process. PM4 spoke about a multi-year initiative, run by the team where knowledge loss led to decreased team performance. This situation required a complex process which utilized a new type of documentation created by consultant resources, not used in other areas of the company (PM4). Key consultant resources that remained on the team, created the documentation and used the new documentation technique to run the first phase of the project. However, going into phase two, these same key consultants left the project team without proper knowledge transfer of the new documentation to the resources who would replace them. Meanwhile, the project team as a whole had a difficult time understanding the new documentation technique that had been created for the first phase; and the second phase of the project was more expensive and took 25% more time than the first phase.

A link between a lack of cross training and knowledge transfer practices to knowledge loss can be found in current literature, where Zhu, Donadelli and Mockus (2016) completed a case study on turnover at Chrome and Avaya. As a result of the research, Zhu et al. concluded that source code could only be considered a knowledge asset for a company if the company's workforce had the knowledge and skills to extract value from the source code. How a lack of quality knowledge transfer practices leads to reduced code quality can also be found in Rigby et al. (2016), who found that survivors or newcomers on a team with high turnover made more mistakes and had a lower quality output from a lack of knowledge transfer. Analysis of the interview data showed that PMs saw an increase in knowledge loss over time, which led to decreased team

performance. These findings are consistent with the context emergent turnover theory, which stated that collective loss off resources over time leads to decreased unit performance (Nyberg & Ployhart, 2013).

To mitigate the impact of the turnover, Rigby et al. (2016) suggested teams assign a successor for critical developers who have the appropriate level of understanding for job functions and strong knowledge of the code. This technique reduced knowledge loss by as much as 15% (Rigby et al., 2016). These findings directly aligned to comments by PM5, who stated that knowledge loss has less of an impact to team performance when PMs complete proactive knowledge sharing within teams and attempt to predict when turnover may occur among offshore consultants. PM3 also suggested assigning a successor responsible for an application if a key resource was to turnover as a strategy to decrease the impact turnover had on team performance.

In addition to issues related to knowledge loss, project teams also saw a decrease in team performance from quality issues, which resulted from collective turnover of consultants. All six PMs interviewed found that high levels of consultant turnover led to decreased code quality and increased defects, which negatively impacted team performance and financial success metrics. PM3 stated, “Any time there is turnover offshore, the amount of unit testing defects usually goes up, and my thought process behind it is [that] new resources don’t have a strong understanding of the purpose our application serves.” PM3’s feedback on collective turnover leading to increased defect and lower quality corresponds with Foucault, Palyart, Blanc, Murphy and Falleri (2015) who reviewed five software development projects and found that an increase in external

newcomers to a team resulted in lower code quality. Foucault et al. attributed the higher defect rate and reduced code quality to limited knowledge of the applications and codebase, as well as the lower quality of new resources. The correlation between code quality issues and decreased team performance can be found in project quality metrics provided by the PMs (SD5).

The project quality and metrics reports provided by the PMs were in Excel format and consisted of a data dump of project metrics including project descriptions, project costs, number of test cases, and number of defects found in each phase of testing. After reviewing the data, I spoke with the PMs to understand the level of consultant turnover experienced in each project. Analysis of project quality metrics (SD5) provided by the PMs interviewed, with the knowledge of the turnover levels for each project, showed that projects experiencing higher turnover of consultants had over 40% more defects from reduced code quality than project run with limited impact from turnover. Increased defects lead to additional projects costs and delays from rework required to correct the low quality code.

Another impact found in data analysis, where collective turnover of consultants decreased team performance was the increase in the time required to bring new resources up to speed. PM1, PM3, PM4, PM5 and PM6 found that when new resources came onto a project team, project managers expected that the resources already had training, but they found that most of time, the new resources skill level was not high enough to take on the work of their processors. PM3 explained that when the new resources are unable to take on the same level of work as the resources they are taking over for, the project

manager must start by giving the new resource small defect fixes first and work their way up to more complex projects. The slow progress of new resources can cause delays to the project timelines or additional work for the initial project team.

Analysis of interview responses showed all PMs experienced a negative impact to team performance from the loss of resources with real project experience, which set the team back or required other team resources to take on more work, reducing overall team performance levels. PM1 explained that in one project, the testing of a new application was being completed by offshore consultants. During test, the company chose to select a new consulting vendor, and all existing testers were turned over. PM1s explained that the new resources did not have an understanding of the application, or real project experience, which delayed testing timeline and forced existing resources to spend additional time bringing the new consultants up to speed, while they had other work to complete. Ghapanchi et al. (2013), showed an alignment in literature, stating that the high complexity of IT project results in taking over 90 days for a new team member on an IT project team to get to a similar level of productivity as a turned over employee. All six PMs interviewed confirmed the team required a significant amount of time for new consultants to effectively replace those who left. These factors lead to decreased team performance.

Another type of impact of collective turnover on the project team that leads to a decrease in team performance is work exhaustion. Analysis of participant responses revealed PM1, PM4, PM5, PM6 all had experiences where project critical deliverables needed to be completed even when heavy turnover hit their project team. In most cases,

the project cannot stop and wait for PMs to develop a new plan based on the reduced resources, so the tasks of resources that turned over during the project get pushed down to the remaining resources or new resources that do not have the same skillset, which causes high stress situations and burnout.

Current literature validates the findings that collective turnover creates work exhaustion and additional turnover. Weinert, Maier, Laumer, and Weitzel (2015) found similar results in a study of 154 IT professionals, which showed that emotional exhaustion and depersonalization were leading contributors of turnover on IT project teams. These findings align with P5 comments that having no predictors and little lead-time for turnover of key offshore team members puts incredible stress on the remaining project team. All PMs explained that the additional stress and pressure put on the team from work exhaustion leads to decreased job satisfaction and a decrease in team performance. In existing literature, many studies exist which found that reduced job satisfaction from collective turnover leads to decreases in organizational performance and success (Bandura & Lyons, 2014; Fortado & Fadil, 2014; Kim & Wright, 2007).

The last type of impact PMs interviewed brought up as having a negative impact to team performance from collective turnover of consults was the collective turnover causing deliverables to be delayed. PM1, PM4, PM5, and PM6 found that turnover of consultant resources impact the project plan and pushed deliverables or caused projects not to deploy on time. PM6 shared a project where a successful project team was given a new strategic assignment and began work on analyzing the business requirements to produce functional requirements. During analysis, several key technical resources turned

over and the team had challenges understanding all impacts of the requirements, which caused the team to produce incomplete requirements. PM6 shared that this went unnoticed until later in the build phase of the project. Once in build, the new technical resources realized the missed impacts and the team had to go back and rethink the approach and write new requirements. This outcome had a measurable impact on project deliverables, which negatively impacted team performance. Analysis of secondary data found in project quality metrics (SD5) provided by PMs also showed that projects impacted by early turnover of key resources had more delays to timelines and lower team performance levels.

Current literature helps to validate the findings shared by the project managers. In a postmortem review of failed IT projects collected from 55 IT project managers, Kappelman, McKeeman, and Zhang (2006) listed turnover of key team members early in the project as a key warning sign of project failure. In addition, James and Mathew (2012) concluded that high employee turnover rates can cause delays to key project deliverable and have a negative effect on team productivity and sustainability. These results echoed the experiences of the project managers in this case.

Correlation to conceptual framework. This theme is a reflection of the findings of Nyberg and Ployhart's (2013) context emergent turnover theory, which found that collective turnover of resources over time, has a negative effect on unit performance over time. The five types of impact found by the project managers interviewed: knowledge loss, quality issues, increased work to onboard new associates, work exhaustion, and delayed deliverables showed that collective turnover of consultants had an increased

impact on team performance over time. Analysis of the data showed that each PM experiences impact from collective turnover in different ways, but left unmanaged, the impact of the collective turnover led to lower project success rates and higher costs.

Nyberg and Ployhart's (2013) context emergent turnover theory also proposed that workforces consisting of high performing resources had an easier time managing collective turnover then teams with average or low performing workers. Four of the six PMs found that collective turnover of consultants had a lower impact on team performance when the team experienced turnover consisted of high performers. PM6 shared project success criteria (SD5) from two similar projects that both experienced high levels of collective turnover of consultants. One of the projects had a small project team, with high performing U.S. team members, while the other had a larger project team with less high performers. The small project team, which had several high performing U.S. team members, still had impact from the collective turnover of consultant team members, but the larger team with less high performing resources had double the increase in defects than the high performing team. This result remains consistent with the findings of Nyberg and Playhart's context emergent turnover theory.

Theme 2: Improving Global Team Dynamics Reduced the Negative Impact of Collective Turnover

The second theme that emerged from data analysis was that improving global team dynamics reduced the negative impact that collective turnover had on hybrid sourced project teams. Analysis of the interview responses and supporting documents showed that PMs who implemented strategies that: (a) empowered their U.S. team

members, (b) improved relationships between onshore employees and consultants through inclusion, and (c) improved global communication practices for the team, helped reduce and mitigate the impact collective turnover of consultants had on hybrid-sourced project teams. As discussed in theme one, the central areas where PMs found negative impact to the project and team performance related to collective turnover were from: knowledge loss, quality issues, increased work to onboard new associates, work exhaustion, and delayed deliverables. This theme addressed the ways improving global team dynamics can reduce these negative impacts.

Five of the Six PMs interviewed (PM2, PM3, PM4, PM5, and PM6) shared that managing global team dynamics was a critical success factor for hybrid sourced teams. Analysis of the interview responses showed that U.S. employee empowerment, inclusion, and global communications practices were three key areas of global team dynamics, which the PMs focused on to limit the impact collective turnover had on the project team. Five of the six PMs (PM2, PM3, PM4, PM5 and PM6) found that when team members acted as mentors for new onshore and offshore consultants, a reduction existed in the negative impact from issues related collective turnover. Even though all managers involved U.S. team members in different ways, ranging from one-on-one mentorship to arranged onboarding sessions for multiple new consultants, five of the six PMs shared how critical having U.S. employees aware and involved was to the success of the onboarding process. Analysis of company onboarding documentation (SD1), collected from successful PMs, showed how PMs effectively manage global teams within the company chosen for the study. Company onboarding documents (SD1) listed required

steps for onboarding, which included mentorship of new consultants by full time U.S. experts during the onboarding process, including shadowing and reverse shadowing, and outlined successful practices for communications including the types of mediums to use, and how often to communicate, within global teams. The steps outlined in the onboarding documents align with successful practices discussed by PMs in interview responses.

All six PMs stated that improving communication between full time U.S. team members and offshore consultants helped to reduce the negative impact collective turnover had on the project team. Similarly, all six PMs interviewed explained that promoting inclusion between U.S. team members and offshore consultants helped the team overcome challenges that resulted from collective turnover of consultants. To provide a deeper analysis of each topic discussed by PMs, responses and analysis includes organization into the following subthemes: empower U.S. team members, improve global relationships, and improve communication, which outline the strategies PMs implemented to improve global team dynamics to reduce the impact of collective turnover on the project team.

Empowering U.S. team members. Data analysis of interview responses and secondary data showed that successful PMs implemented strategies to empower U.S. employees and actively involve them in activates involving onshore and offshore consultants to limit the impact collective turnover of consultants had on the project team. The PMs empowered U.S. team members in several different ways, which included: involving U.S. team members in onboarding activities, consultant work assignments,

shadowing and reverse shadowing, and cross training. All six PMs stated that activities related to empower U.S. team members helped to reduce the negative impact collective turnover of consultants had on the project team.

Analysis of interview responses showed a common strategy used by PMs to empower their U.S. workforce was to involve U.S. employees in critical activities for onboarding and training new consultants. To reduce the impact of issues related to collective turnover; five of the six PMs interviewed (PM2, PM3, PM4, PM5, and PM6) involved U.S. team members in the onboarding process for new consultants. PM3 reported that when U.S. team members assisted in onboarding new consultant resources, those resources were project ready 50% faster than resources on boarded without U.S. team member involvement. Analysis of project quality metrics (SD5) provided by PMs align with the results of the interview responses, showing that projects which had resources who were on boarded utilizing U.S. team members had less delays related to resources becoming project ready. These results find support in current literature related to global IT teams in Carter (2015), who stated that assigning mentors with knowledge of the current process is a critical step in successfully onboarding new employees. PM3 also shared experiences related to utilizing U.S. team members in consultant onboarding, explaining that their team utilizes U.S. team members with a strong knowledge of the area where the new consultants will be working, to introduce the new consultants to key features of the application, and walk them through coding standards prior to the resource beginning work.

Another strategy used by successful project managers to empower U.S. team members involved U.S. team members having control over work assignments for consultants. PM3 commented that on his projects, PMs who allowed U.S. workers to assign small or low complexity tasks to the new consultants and ensure the use of proper coding standards before moving the resource on to more complex projects and tasks had higher project success rates. PM3 stated that when implemented, code quality for the new resources was much higher and the team report lower amounts of unit testing defects. Recent literature validates this approach, as Yates (2014) studied 12 software engineering onboarding sessions of new software developers, and concluded that situations where experts worked with new developers beginning with simpler tasks, the onboarding process and the new team member had more successful. Additional literature that supports the feedback gathered through interviews with the PMs can be found in Prasannakumar (2015) who stated having high performing employees train other employees in their area of specialization was an effective way to reduce the productivity loss associated with turnover of project team members.

A third strategy discovered in analysis of interview responses included ways PMs empowered their U.S. workforce using shadowing and reverse shadowing to train consultants. PM2 suggested that when new consultants interacted with U.S. team members while being on boarded to the team, including a shadowing process, the resource integrated more successfully with the project team, as opposed to when all onboarding activates were completed offshore with no input or insight from the U.S. employees. Pham (2014) had results that relate closely to the finding of the PMs, stating

that allowing novice developers to see and experience the right way to do things is critical in the onboarding process. PM6 shared company onboarding documents (SD1) used by the team to guide team members in mentoring new resources. The document was an Excel spreadsheet which included key tasks for the new resource to complete prior to the resource being ready to begin work on the team. A U.S. employee would document each step, when the step finished, and the level of success the new team member had in each area. These tasks come in three categories, knowledge transfer, shadowing, and reverse shadowing. The shadow and reverse shadow steps allowed U.S. team members to first perform the job function the new resource would be performing while the new resource observed, then allowing the new resource to perform the job function while the U.S. resource observed and provided feedback. These practices led to new resources coming up to speed more quickly and being able to take on more complex work. The practices discussed in the onboarding documents remain consistent with the information provided by the PMs in interview responses.

The last strategy discovered in the analysis of interview responses was U.S. team members empowered to promote and implement good cross training practices help to reduce negative impacts that consultant turnover has on the project team. PM4 stated that for hybrid sourced project teams to be successful there needs to be cross training between U.S. employees, not only during the onboarding process, but throughout their time on the project team. PM5 expressed the importance of brining the entire team together at the start of a project including consultants and those new to the team stating,

> You don't want to find out 2 months in, that we started from a very weak position. Let's start from a strong position. Let's get all hearts in the table, let's do that kickoff meeting or prior starting project work, where everybody has a good understanding of who all the partners are, who all the people that are in the room. You need to know who is a part of the team and I think meeting everyone face to face, or through video teleconference or being able to talk to them, I think that creates a strong relationship to start in a good position.

At an International Workshop on Global Software Development, Lanubile, Damian, and Oppenheimer (2003) stated collocated kick off meetings are an important piece of the empirically tested best practices in software projects utilizing global teams. In addition, Lanubile et al. found kick-off meetings, periodic collocated team meetings, cultural training, and group chats including team photos to decrease social distances are successful strategies in improving team performance. Results from data analysis of interview responses and industry studies proved hosting collocated kickoff meetings are critical to building a strong global project team. In turn, having a strong global project team helps to reduce the negative impact collective turnover of consultants has on hybrid sourced project teams.

Improve global relationships. In addition to empowering U.S. team members, all six PMs commented that to reduce the impact collective turnover of consultants has on the project team, PMs need to focus on creating a one team global mentality and finding ways to bring consultants and full time employees together. Interview responses shared that cultural differences play a large role in amount of turnover and impact collective

turnover has on global teams. All six PMs agreed that improving global relationships helped to reduce the negative impact collective turnover has on the project team, but strengthening the overall team and proactively reducing situations that cause knowledge loss for hybrid sourced teams.

Analysis of interview responses showed that lack of inclusion of consultants in project activities and team building increased the impact collective turnover had on the project team. All six PMs suggested strategies focused on promoting inclusion of consultants. Current literature on global IT teams confirmed the challenge the PMs interview found, Zander, Butler, Mockaitis, Herbert, Lauring, Mäkelä, and Zettinig(2015) stated promoting inclusion in globally out sourced team is a major challenge. In alignment with the comments by Zander et al., PM2 shared the challenges of not having offshore team members actively included in the project stating, "Often times as many as 45 offshore consultants could be represented by one or two onshore consultants." PM2 stated,

> I mean sometimes, you don't even realize there is turnover offshore, in some cases there are projects were there's like 45 offshore resources. So all of a sudden there is a quality change in code or dates slip and you find out 10 resources left.

This issue can be seen in current literature in Jabangwe, Šmite, and Hessbo (2016) who completed a quantitative study, which looked at quality issues in software development projects where work transitioned to offshore consultants. The study found a reduced code quality transitioning to offshore consultants and suggested building a close relationship between the original developers and new consultant as a mitigation technique

to overcome these quality issues. In addition, PM2 suggested to avoid unexpected changes in code quality, PMs must be more aware of offshore resources that are critical to the project's success, what those resources work on. Once the PMs have this level of understanding, they can better understand when there is a high risk of turnover before completion of key phases.

Further analysis of interview responses showed that the negative effects of collective turnover could be increased when poor global team practices took place and project team members excluded consultants from project activities. PM1 explained that when key offshore resources are excluded from project conversations and team activities, the activity is more likely to be unsuccessful because the offshore resources often know more about the issues being talked about, than those who represent them. Not having critical consultant team members on the calls means those taking part in the conference call or project activity may have to stop the conversation and wait until that resource is available or they continue with the discussion only to learn afterwards that their assumptions were incorrect. PM1 stressed that including all project critical resources on important team calls and activities helps to avoid these challenges. PM3's comments on inclusion coincided with PM1, but PM3 also mentioned that for offshore members to be included in team activities, they have to stay on late or come in extremely early, from the time differences, which puts a lot of stress on the team. To avoid this stress, PM3 implemented a strategy to promote inclusion of offshore resources on critical calls, while avoiding causing work exhaustion by creating a split shift between offshore and onshore hours, to ensure the ability to stay connected without introducing the high stress extended

workdays. Work exhaustion is a key negative impact of collective turnover on hybrid sourced project team and this inclusion strategy helps to reduce work exhaustion level, thus decreasing on of the negative effects collective turnover has on the project team.

Another area where collective turnover has a large impact on hybrid sourced project teams is knowledge loss. Successful global team practice including, inclusion can help to reduce the amount and impact of knowledge loss on the project team. In a response during the interview, PM6 talked about ways successful PMs utilize inclusion to reduce knowledge loss, stating

> It definitely helps in building relationships with offshore and having good communication practices. So, I feel that when a project lead takes the time to speak to the people offshore and schedule meetings in the morning which isn't possible for every project that someone may be leading, but if you can find a way to schedule time where you are actually hearing one another speak instead of relying solely on written communications, that certainly has helped. Spending time to share documentation and workflow and process flow and asking questions, and making sure they are repeating things back to you, this is how I have seen reduce knowledge loss. Just ask for understanding, ask them to repeat it back to you, have those meetings when you can actually speak and hear one other's voice.

Current literature also looks at how cultural differences impact knowledge transfer, Betz, Oberweis, and Stephan (2014) completed a study to explore knowledge transfer practices within software development projects in six German

companies. Betz et al. found cultural differences, time zone barriers, and communication issues led to reduced knowledge transfer between teams and resulted in lower project success.

Betz et al. proposed a knowledge strategy where internal employees and external consultants meet at least weekly and include conversations on project activates as well as social/team conversations is the best way to avoid failures from poor knowledge transfer or sharing. A review of provided company knowledge transfer plans (SD2) outlined weekly team meetings with onshore and offshore consultants are a critical piece of the knowledge transfer strategy for the PMs interviewed. The knowledge transfer plans require PMs to proactively document key activities and subject matter expertise of project team member to ensure that if a team member were to turnover, the amount of knowledge lost could be limited. All six PMs, along with the knowledge transfer plan and existing industry literature all noted the importance of keeping knowledge transfer activities current to avoid losing critical knowledge or information for the company.

Improve communication. Another important component of global team dynamics is communication practices. All six project managers interviewed brought up communication as one of the top challenges for their global hybrid sourced project teams. Collective turnover of consultant resources exasperate communication challenges. The PMs stated that time difference, cultural barriers, a lack of personal interaction were main contributors to communications challenges, which a negative impact on the project team. All six PMs noted improving global communication practices as a strategy to reduce the impact collective turnover of consultants had on the project team.

Discussing the negative impact poor global communication practices has on the project team, P2 stated

> Sometimes it's simple as like the time difference. It's challenging to get meetings scheduled beyond the morning if you need people to meet offshore which usually they want the offshore developers on the calls. I don't feel connected to the people offshore. It's like there're just names and e-mails in some cases. we really don't get to establish, I think, a strong enough working relationships, you know that you can just walk up – like our onshore developers – you can just walk upstairs and talk to them but, you know, they represent such a small percentage of the work.

Current literature showed a similar shift to onshore or nearshore workers, Brooks, Ravishankar, and Oshri (2016) noted that many companies chose to near source their consultants rather than offshoring, as the cultural similarities, closer time zones and closer proximity for face-to-face meetings was more important to project success then the increased cost savings from offshore consultants.

> P1 commented that communication is a major issue and noted how collective turnover of consultants makes global communications practices even more difficult, stating
>
> The longer a consultant is with the team the more they adjust to the language barrier, understand the business language for our organization and team dynamics. When they turnover it's like starting from scratch in terms of communication with

the new resource. Often people assume the new resource knows things the old resource did.

Links between poor communication practices and the negative effects of collective turnover of consultants can be found in Moe, Šmite, Hanssen, and Barney (2014), who researched four failed outsourcing opportunities and found that the main reason the offshore relationships end, related to language barriers and the inability to build relationships and develop personal capital for the requesting company.

The PMs' statements on global communication challenges also coincided with Yagüe et al. (2016), who stated global teams have additional challenges with communication, because of language barriers, time zone differences, and challenges of working in different geographic locations. All six PMs confirmed that having leadership focused on supporting positive communication practices helped improve team performance and reduce the negative impact collective turnover of consultants has on the project team. Review of company onboarding documents (SD1) provided by the PMs, outlined tools and technology provided to the company to help minimize the language barrier(s) and geographic location challenges of global teams. These documents validated the statements the project managers made about the challenges of communication between global teams and the need for leadership support in defining proper communication practices.

All six PMs suggested that PMs should actively work to close the communication gap between their U.S. team members and consultants as a strategy to help reduce the negative impact consultant turnover has on the project team and improve team

performance. PM1 explained one way their team managed the language barrier was the creation of a SharePoint site, which documented key phrases used by the teams and defined key business terminology that offshore team members would review when becoming part of the team. Jørgensen, Hovmøller, Nielsen, and Tambo (2015) found similar results in a study exploring where companies looking to utilize the agile software development methodology created specialized communication practices to help bridge the gap between local developer who interacted directly with the business and offshore consultants. Jorgensen et al. found that often time's metaphors explain concepts in a more meaningful way. Similarly, PM1 mentioned that for teams to be successful, the offshore consultants need to share key terms and terminology they use, because in many teams subject matter expertise for technical concepts shifts to offshore consultants, both teams must work together to insure communication is effective.

Correlation to conceptual framework. Theme 2 relates to Nyberg and Ployhart's (2013) context emergent turnover theory, in that the PMs understand that collective turnover of resources over time has a negative effect on unit performance over time. All six PMs spoke about challenges poor global team practices had a negative impact on the project teams. Some of these negative impacts to the project team included: increased knowledge loss, commination challenges, additional turnover, and work exhaustion. PMs found that when the global team experienced higher rates of collective turnover of consultants, the impact from poor global team practices increased. This finding is a direct correlation to the context emergent turnover theory, which

proposed that collective turnover of resources over time increases the negative impact to unit performance

Theme 3: Utilizing Knowledge Transfer Tools and Project Documentation Practices Reduced the Negative Impact of Collective Turnover.

The third theme that emerged from data analysis was that PMs who successfully utilized knowledge transfer tools and project documentation practices reduced the negative impact of collective turnover. All six PMs shared that PMs who insured their teams followed good project documentation practices reduced knowledge loss related to collective turnover of consultants. Analysis of the interview responses and supporting documents showed that PMs who implemented strategies that utilize: (a) knowledge transfer tools and (b) Ggood project documentation practices, helped reduce and mitigate the impact collective turnover of consultants had on hybrid-sourced project teams. Interview responses from all six PMs and review of supporting documents, revealed the central areas where PMs found negative impact to the project and team performance related to collective turnover were from: knowledge loss, quality issues, increased work to onboard new associates, work exhaustion, and delayed deliverables. This theme focuses on the ways utilizing knowledge transfer tools and supporting good project documentation practices reduce the negative impact collective turnover has on the project team.

Knowledge transfer tools. Analysis of interview responses showed that PMs who implemented and mandated the use of knowledge transfer tools and practices on their project teams found more success managing the impact collective turnover of

consultants had on the project team. All six PMs shared that they implemented knowledge transfer tools and practices within their teams, with the hope of reducing knowledge loss and quality issues related to collective turnover of consultants. The PMs used several different approaches and tools, such as creating knowledge transfer repositories in Microsoft SharePoint, creating knowledge transfer team sites, and knowledge transfer plans and dashboards. These tools went after managing knowledge loss in different ways, but each showed an increase in knowledge retention and decrease in knowledge loss and quality issue related to collective turnover of consultants. In addition to findings discovered through analysis of interview responses, several of the PMs shared data collected from projects they completed in 2017, which shows project success metrics (SD5). Analysis of this data revealed project teams that had knowledge transfer tools and practice in place had a decreased number of unit testing defects and improved code quality in all phases of projects over projects which did not use knowledge transfer tools to bring new team members up to speed and share important project documents.

All six PMs shared experiences where their team relied on subject matter expertise of key offshore resources, and when those resources turned over without notice or in large numbers, the team experienced knowledge loss and reduced performance unless knowledge transfer tools and practices were in place. PM1 mentioned the importance of implementing good knowledge transfer practices, and stated,

> "When somebody turns over offshore, and a replacement comes in it takes longer to get jobs done. Before the resource turned over it was automatic, they were the

> expert in the field, like certain areas even, the U.S. employees and project managers, are not experts anymore because we transitioned so aspects of the applications to the offshore consultant teams. So, after the turnover, it would take the project team longer to investigate issues, it's almost like starting over for us just to see what they did and so that's the problem, the expertise is gone.

Current literature showed s many within the IT Industry experience similar challenges of replacing resources lost to collective turnover, Madsen, Bødker, and Tøth (2015) found that collective turnover leads to knowledge loss for project teams, and this continuous knowledge loss decreases a company's understanding of complex jobs, especially within the IT industry.

Review of interview responses and supporting documents revealed several ways PMs implemented and utilized knowledge management tools to reduce the impact that collective turnover has on the project team. PM3 shared a strategy where the team implemented a knowledge transfer tool, in the form of a team knowledge transfer website, to reduce knowledge loss. The team created a knowledge transfer site, utilizing the Microsoft SharePoint tool. On this team, site managers would require key project resources to include and organize information on coding standards and key project information updated by all team members and provided to new associates. This strategy helps the team stay current on the knowledge the team has related to standards and application information. Having key offshore resources update the team site on a regular basis helps to avoid a rush to complete knowledge transfer activities, when a resource transitions off the team or leaves the company unexpectedly. To support the claims that

these tools and practices helped reduce the impact collective turnover of consultant resources has on the project team, PM3 also shared project success metrics (SD5), which consisted of key performance indicators and data related to number of defects, project costs, number of test cases completed on projects run by the PM, before and after the knowledge transfer tools and practices were put in place. Review of the data provided confirmed that after completing PM3's knowledge transfer strategy, projects had on average 50% less defects found in unit testing, as the team ensured new resources were quickly brought up to speed and all team resources understood the complexity of the applications and past changes. Utilizing knowledge transfer tools to improve knowledge transfer practices remains prevalent in current literature by Sultan (2013) who found that companies that introduce new technologies, such as the cloud, into their knowledge management processes are more successful.

In a case study of seven technology companies Fernandes, Raja, and Austin (2005) found that using portal and team sites to manage knowledge transfer helped to reduce knowledge loss and projects costs, especially complex projects, where knowledge storage and transfer is critical. Another strategy found in analysis of the interview responses came from PM5, who also introduced a Microsoft SharePoint site to help manage knowledge transfer practices on the team. In PM5s implantation, the team originally built the site to be used by U.S. team members. The site acted as a shared repository of information related to team projects and applications. When PM5 realized that the U.S. team members utilizing the shared repository of information had lower level of knowledge loss, and new team members got up to speed faster, they expanded the use

to offshore consultants. When offshore used the site, newly on boarded resources come up to speed quicker and there was a decrease in quality issues related to a lack of understanding of applications.

Project documentation practices. In addition to using knowledge transfer tools and technology to organize and share key project and application information, PMs also shared the importance of implementing and enforcing good project documentation practices. Analysis of interview responses uncovered another strategy used by successful PMs to limit the impact collective turnover had on the project team, which called for proactively document key areas of application and project information critical to knowledge transfer practices. Five of the 6 PMs interviewed mentioned that having maintained and easily available project documentation and application information is critical to ensure new team members understand applications and work within the rules of the team. Document review of a subject matter expertise document (SD4) and interview responses from PM3 outline a strategy implemented to reduce impact of collective turnover of consultants, which uses improved and proactive documentation techniques;

> We've built subject matter expertise documents that cover domain expert areas, so this was probably 2 years ago. We identified the risk that we have a large number of applications in our area spread over many resources, and limited subject matter experts. So specifically, I've got responsibility of about 12 or 13 different applications and within those 12 or 13 different applications I only have, you know, at any time I have like five full time us employees to support those applications. So we put together these domain expertise documents and it's a

> PowerPoint that they go through and document the applications and we meet on a quarterly basis to review them. Those PowerPoints are information like what purpose does the application serve, how many users are on it, what kind of framework is on it, is anything coming into life, is anything in support, do we need to update drivers on something, who are our production support contacts, who are our business contacts. God forbid we lose someone all that knowledge won't walk out the door.

Another way PMs use good documentation practices to limit knowledge loss and improve team performance is to use new documentation tools and practices to enhance and improve older documentation which has gaps or lacks the detail needed to transfer critical knowledge to new team members. PM6 shared strategies related to project documentation used in their project team to limit the impact collective turnover of resources had the project team. His project team received a new strategic program where a team, which consisted of mostly offshore consultants, formed to migrate an old technology to a new platform. In the past, the old platform had limited project documentation, and project that required changes to the old platform were very costly and time consuming. Collective turnover of consultants continuously reset the level of expertise his team had about the old software. As part of the migration, the team defined and implemented a new type of project documentation that clearly outlined key application information, in an easy to read format. Once implemented, future projects completed in less time and for lower costs, and when new consultant subject matter experts turnover over, the team recovered quicker using the new documentation. In

recent literature, Patanakul (2014) studied 14 large scale technology projects from the United States, UK, and Australia and found that a lack of clear project documentation was a leading cause of project failures and lower team performance. The literature and analysis of the interview responses confirmed that good documentation practices help to reduce the negative impact collective turnover has on the project by reducing knowledge loss and improving the quality of new team members.

Correlation to conceptual framework. Theme 3 aligns to Nyberg and Ployhart (2013)'s context emergent turnover theory in that the PMs understand that knowledge loss is a team asset impacted by collective turnover of resources over time. Increased knowledge loss on teams, increases defects in all phases of coding causing the need to take more time for teams to get new resources up to speed and reduces team performance. All six PMs spoke about increased knowledge loss when offshore resources turned over unexpectedly or in large numbers. The PMs found that when the global team experienced higher rates of collective turnover of consultants, the impact and the rate of knowledge loss increased. To reduce this increased rate of knowledge loss from collective turnover of resources, good documentation practices and utilization of knowledge transfer tools needed to be put in place. The decrease in team performance levels during collective turnover of resources is a direct correlation to the context emergent turnover theory, which proposed that collective turnover of resources over time increases the negative impact turnover has on to unit performance

Applications to Professional Practice

Turnover on IT project team causes rework for the project team, time lost, higher project costs, and knowledge loss (Han & Mithas, 2013). For hybrid sourced IT teams, high turnover of consultants leads to collective turnover, which increases the negative impact that turnover has on the project team. When left unmanaged, this constant turnover and decrease in team performance level can damage a company's ability to successfully complete projects. When project managers put strategies in place to manage the impact that collective turnover of resources has on the project team, PMs can reduce the negative effects caused by collective turnover and increase project team performance.

I conducted a qualitative single case study to explore strategies implemented by PMs, which reduced the impact that collective turnover of consultants had on hybrid sourced IT project teams. This case study was completed at a Fortune 100 company located in North Eastern Pennsylvania. Interview responses from the six PMs, along with supporting documents and secondary data provided by the PMs, provided insight regarding what types of impact collective turnover of consultants had on project teams they managed and what strategies were successful in reducing the impacts. From the data, improving global team dynamics and utilizing the knowledge transfer tool and good documentation practices led to a decrease in the impact that collective turnover of consultants had on the project team.

Findings of this study will provide PMs, organizational leadership and business leaders, and IT professionals' insight into the different ways collective turnover of consultants impacts the project team. The strategies shared by the project managers may

provide techniques that can be used within global project teams to mitigate the impact collective turnover of consultants had on the project team. This can improve the project management role in hybrid sourced project teams throughout the industry.

Even though the research focused on collective turnover of consultants on hybrid sourced IT teams, these findings could be transferable to other industries that utilize offshoring. The findings will also add to literature and increase the awareness of collective turnover. The finding can help PMs understand the importance of global team dynamics and the need to utilize knowledge transfer tools and good documentation practices.

Implications for Social Change

Global teams have become more and more prevalent in the IT industry. For global IT teams to be successful, business leaders need to understand cultural differences and challenges that come with the benefits of global teams (Khan & Azeem, 2014). In a study of Indian IT associates, Deery, Nath, and Walsh (2013) found that a significant portion of training focused on teaching the employees to mask their accent and change their name or persona to better fit the western culture. Findings from this study helps project managers understand that poor global team practices does not help to grow a one team mentality or support all global team members and can lead to decreased team morale and more turnover. Several of the strategies found in this study relate to improving global team dynamics to reduce the impact collective turnover of consultants has on the project team. PMs and business leaders can learn how beneficial these

practices are for the project team to begin to improve quality of life and working conditions for all team members regardless of location.

Further implications for social change include the potential for business leaders and project managers to gain an increased understanding of work exhaustion and the impact on the project team and their workforce. One of the types of impact collective turnover of consultants has on the project team, called out by PMs, was work exhaustion. Work exhaustion, also known as job burnout, relates to decreased mental resources from overwhelming work related activates (Lo, 2013). This findings of this study confirmed that collective turnover of consultants caused teams to have to take on additional work or perform additional responsibilities as new resources get up to speed, which causes work exhaustion and reduced job satisfaction. Bandura and Lyons (2014) found that reduced job satisfaction leads to decreases in organizational performance and success and additional turnover. PMs and business leaders can use the results of this study to understand the negative impact work exhaustion has on the project team and the workforce. Creating an environment that reduces work stress and improves job satisfaction will help reduce turnover and improve quality of life.

Recommendations for Action

The purpose of my study was to explore strategies PMS implement to reduce the negative impact that collective turnover has on hybrid source project teams. Findings of the study revealed PMs who implement strategies to improve global team dynamics, utilize knowledge transfer tools, and promote good documentation practices can successfully reduce the impact that collective turnover of consultants has on the hybrid

sourced project team. PMs must lead teams of many different types of people to complete projects on time, on budget, and delivering requested scope. It is critical for these project leaders to understand the impact collective turnover has on their project team and successful strategies PMs can use to mitigate the impact.

My goal is to publish my findings to share the results within the professional community. I will first share the results with the organization where the study took place. With thousands of employees, the results can be spread throughout all sites globally. In addition, the intention is to submit a summary of the study to several professional journals including: *The Journal of Information Technology Education: Research, Journal of Information Technology & Software Engineering*, and *The Journal of Modern Project Management*. Finally, the goal is to look for opportunities to share results of the study at industry conferences and events, including events run by PMI.

Recommendations for Further Study

This study focused on strategies PMs used to successfully mitigate and reduce the impact collective turnover of offshore consultants has on the IT project team at a facility in northeastern Pennsylvania. The results of this study reflect the opinions and experiences of PMs at one site. I recommend additional studies to look at strategies PMs use to mitigate and reduce the negative effect of high consultant turnover at other sites throughout the world. In addition, this study should be completed for other industries that use a hybrid team of full time U.S. workers and offshore consultants not in the IT industry.

In interview responses, the PMs who participated in this study suggested that additional research needs to be done around managing consulting contracts to help build better global project teams and reduce the collective turnover. Four of the six PMs stated that PMs who actively managed consulting contracts are more successful. Even though IT consulting is prevalent throughout the United States, companies utilize this tool in many different ways. Consulting contracts define the rules and expectations the requesting company and the consulting company have for elements like: number of resources, expected workload, quality of measurable, and SLAs (Loebbecke, Van Fenema, & Powell, 2016). The participants brought up two important ways that consulting contracts impact hybrid sourced project teams: the ability to and rules around consultants transitioning from the consulting company to working for the U.S. based company and situations where consultants rotate out of companies on a timeline. All of the PMs interviewed stressed that companies who proactively manage consulting contracts and push consulting companies to allow resources to stay with a team or transition to the U.S. company team when performing well, are better at dealing with the issues related to high consultant turnover; all concluded that more research should be completed to fully understand the best practices for consulting contracts.

Reflections

Upon reflection of this work and learnings during the doctoral study process, I realize the limited understanding held of the importance of team dynamics in information technology projects. I never realized how many different ways collective turnover could impact the project team, and how many of the impacts derived from issues related to team

dynamics. With 10 years in the industry, I thought that I experienced all different types of projects and team in the industry, but this study helped to realize the IT industry, project teams, and people continue to constantly evolve in doing things in new ways. Completing this study helped to understand the complexities of hybrid sourced project teams and the role of the PM.

As the key instrument of data collection for this study, I strove to collect data without bias. My role as the researcher also required the ability to understand current literature around hybrid sourced project teams and global team dynamics, and present findings in a clear, ethical, impactful, and organized way. Hybrid sourced project teams function under many stresses related to cultural differences, communication challenges, and increased work exhaustion, whereas finding strategies to reduce negative impacts of collective turnover remains both complicated and meaningful. Completing this study not only helped me to become a better researcher, but also helped me to become a better PM, more mindful of global team dynamics and the impact decision has on the entire team.

Summary and Study Conclusions

The purpose of this qualitative case study was to explore strategies successful PMs implemented to mitigate and reduce the negative impact that collective turnover of consultants has on the hybrid sourced project team. Analysis of semi-structured interviews responses and supporting documentation concluded that PMs who improve global team dynamics, implement knowledge transfer tools, and promote good documentation practices are more successful in mitigating and reducing the negative impact of collective turnover. Many of the PMs implemented strategies based on their

own experiences, learning from past failures, or advice from other PMs. The results of this study could help accelerate use of these successful strategies to avoid future project failures.

Organizations use offshoring as a way to reduce costs and in some situations, increase competitive advantage by bringing in resources from all over the globe. This research brings to light challenges that come along with offshoring related to collective turnover. Companies will continue to utilize and expand global teams, whereas it is critical that PMs find ways to reduce negative impacts of global teams while optimizing the benefits to improve overall team performance and project success rates.

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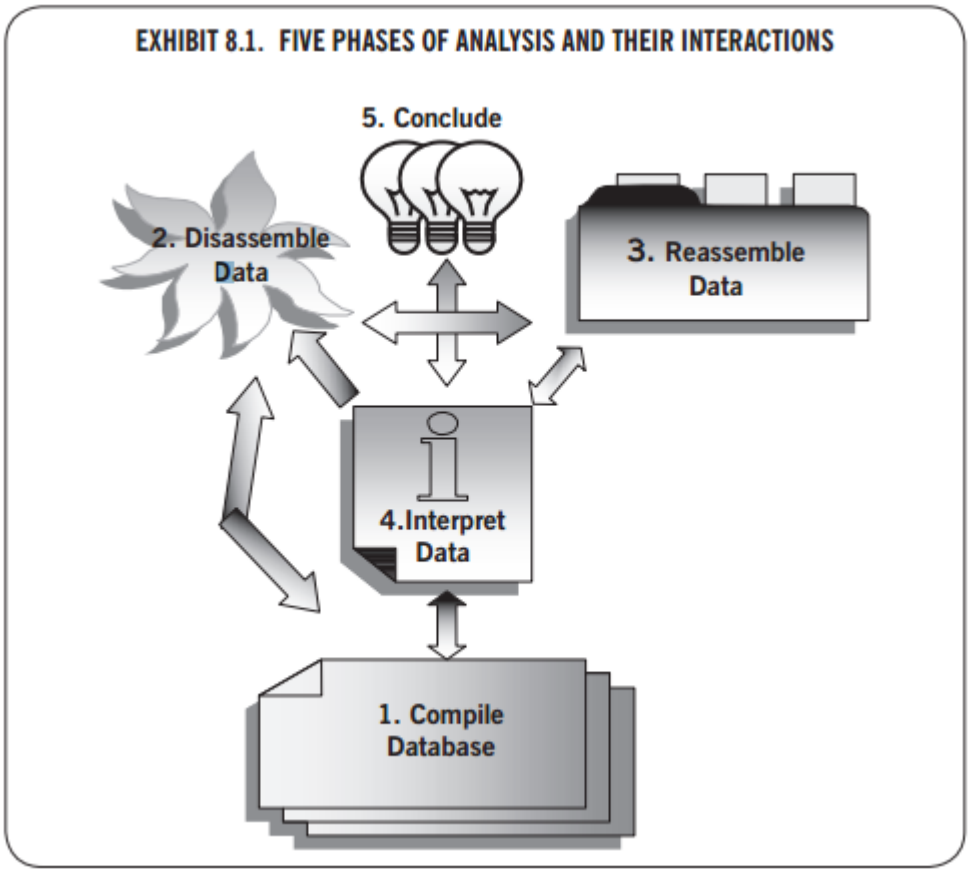
Appendix A: Five Phases of Analysis and Their Interactions



Appendix B: Interview Protocol

Things to Do

- Watch for visual cues
- Ask follow up questions
- Ask probing questions
- Take notes

Things to Say

Opening/Introduction- "Thank you for taking time to meet with me on this important topic. I have some coffee and water here if you would like some now or during the interview. The interview will last approximately 30 minutes, and we will be talking about your experiences dealing with turnover on IT projects teams that utilize offshoring. I will be recording the interview, and will provide you with a transcript of the interview within one week. Do you have any questions?"

Demographic Questions (IT Project Manager)

1. What is your current role within the IT team?
2. How many years have you been in this position?
3. How many direct/indirect reports are you responsible for?
4. In the last two years how many U.S. team member left the IT team?
5. In the last two years how many consultants team members left or transitioned to a new team?

Interview Questions (IT Project Manager)

1. What challenges have you seen while managing an IT project team that consists of both U.S. employees and outsourced consultants?
2. What impact has team personnel turnover have IT project teams you have managed?
3. In your opinion, how have these challenges impacted project deliverables?
4. What strategies have you used to successfully mitigate the challenges caused by turnover?
5. What strategies have you implemented which were unsuccessful in reducing the issues caused by high levels of consultant turnover?
6. What strategies have you implemented to improve knowledge transfer when IT project team members transition on or off a project?
7. What other information would you like to provide that we have not already talked about?

Wrap-up/Conclusion- "This concludes the interview. Thank you again for meeting with my and giving us your insight on this topic. I will provide you with a transcript of the interview within one week, as well as my interpretations of the responses for your review. Your name and personal information will remain confidential and any reference to you within the study will not use your real information. Thank you and have a great day."