The purpose of this quantitative correlational study is to examine the relationship between PMG, PMY, PMA, and PS in the IT industry. The predictor variables are project PMG, PMY, PMA. The criterion variable is PS. The target population will consist of project managers located in the United States of America from the IT industry.  The implications for positive social change include the potential to successfully complete community critical IT projects through the selection of the right project manager as predicted by PMG, PMY, and PMA. The problem is that some project sponsors in the IT sector do not understand the relationship between project manager's gender (PMG), years of experience (PMY), age (PMA), and project success (PS).

A Review of the Professional and Academic Literature

The purpose of this professional and academic literature review is to determine if there is a relationship between PMA, PMY, PMG, and PS. This literature review serves to recognize various authors who have focused on the various aspects of project success in their publications. Particularly, literature is reviewed to provide the audience a background research related to the primary research question and hypothesis. The objective of this literature review is to discover prior research about the study subject. The literature review provides a background of the study and explains earlier researchers' thoughts about the study, correlations, contradictions, and existing gaps.

**Strategy for Searching the Literature**

The professional and academic literature covered throughout this literature review

came from peer-reviewed journals and articles, textbooks, published doctoral dissertations, websites, research documents, IT organizations, various university libraries, and databases: EBSCOhost, ProQuest, ABI/Inform, Business Source Complete, and Google Scholar. The dates of the peer-reviewed sources and other scholarly publications included in this literature reviewwill range from dates 2000 to 2018.

**Theoretical Framework**

The theoretical foundation of this study is the critical success factors (CSF) theory proposed by Slevin and Pinto (1986). Research on this theory began with Slevin and Pinto (1986) when the authors focused on examining the relationship between project managers and project success. The importance of determining factors to understand PS was carried out by the Project Management Institute (PMI) and tracked back to 1986, and the causes of success and failure on projects have been the theme on many types of research (Shenhar, Tishler, Dvir, Lipovetsky, &Lechler, 2002).

According to Baporikar (2013), scholars were able to introduce a planning tool to ensure successful competitive performance for the organization by using CSF theory. The theory supports evidence about the reasons for the existence of the research problem, which is important to achieve PS. Slevin and Pinto (1986) introduced a process used to determine critical success factors that were predictive of successful project management where experienced managers on projects were asked to generate critical success factors that they felt to be crucial to successful project implementation. This is related to the study's independent variables, which are PMG, PMY, and PMA.

There are numerous CSF variables that enable organizations to determine if the project is a success. Project managers play a significant role in CSF. The framework I will use for this research is examining the relationship between various variables and check if there is a relationship between PS being the independent variable and the dependent variables being PMG, PMY, PMA.

CSFs are attained by project managers in which there is a need to understand how projects can achieve success (Zilberstein& Messer, 2010). When an appropriate project manager is selected, CSF is highly to occur as a result of many factors. According to Millhollanand Kaarst-Brown (2016), project managers' objective is to work towards achieving success on projects, and the role of the project manager is to lead others to success (Millhollan&Kaarst-Brown, 2016).

While projects are essential to the growth of businesses, there are many projects that fail. Project issues occur throughout the project life cycle from the discovery phase, delivery, to hand over (Hjelmbrekke, Hansen, &Lohne, 2015). Reasons for project failure include: (a) problems with project manager (b) problems with processes, and (c) risk and issues on projects. However, the main reason is because of higher leadership (Albliwi, Antony, Abdul Halim Lim, & Van der Wiele, 2014), to teams and individuals (Dwivedi et al., 2015). Thus, understanding PMG, PMY, PMA can help organizations increase project success and reduce failure on IT projects. Research also shows that project managers contribute towards project success by resolving project uncertainty and complexity and clarifying the past, present, and future project complexity (Bakhshi, Ireland, &Gorod, 2016).

**Project managers Age**

In this section, the analysis of pertinent literature associated with project managers' age will be part of the literature review since the primarily concentrated efforts are to select the most relevant literature for this research study. PMA is one of the dependent variables that influence project success in the IT project management sector. The sections will demonstrate how project managers' age influences project success in organizations.

In many countries, the population is aging which means project managers are aging across the IT industry. Aged project managers have increased representation in the entire community of project managers. This trend of increase will continue to grow (Irmen, 2017). This phenomenon is occurring in both developed and developing countries (Gentry &Mittelstaedt, 2017). The United Nations (UN) has listed population aging as one of the leading social transformations of the twenty-first century, and UN World Prospectus, an estimated 900 million people are aged over 60, which represent 13% of the world's total population (Lutz, Butz, & Samir, 2017).

 The population aged over 60 is the fastest-growing segment and, by 2050, around 25% of the world's population will be over 60 years (Choi, Guo, Kang, &Xiong, 2017). Kulik, Ryan, Harper, and George (2014) mentioned the need to redefine how we refer to age as interchangeable attributes because we have an older and more diverse workforce. Many organizations fail to express or take note of the age of project managers during the recruitment process (Seboni&Tutesigensi, 2015). Many recruitment organizations fail to take note on PMA and age is not explicitly mentioned in their policies because of a potential breach of employment laws and the risk of litigation (Seboni&Tutesigensi, 2015).

According to Bezak and Nahod (2011), project managers lead, organize, plan, control, implement, execute, and coordinate projects and, the age of the project manager could possibly have an impact on project outcomes.According Mom, Fourné, and Jansen (2015), project managers are experiencing a generational gap, which has engendered the industry found on a survey which was sent to 1,026 managers of whom 359 responded or 35% of respondents. The results came from that the average age of project managers was 40 years and peaks at 27.4 and 54.6 years of age. These statistics displayed that the industry has a major generational gap. Project managers that are aged over 50 years are likely to have taken the project management position after switching from a different career. The average number of subordinates of a manager, (i.e. those people who directly report to the manager as well as those who reside at further levels below) is 47.

A survey was carried out by Wang and Wanberg (2017) which included 100 years of research on career management and retirement. The Research on career management took off in the 1920s, with most attention devoted to the development and validation of career interest inventories. The research included major theoretical perspectives and findings on career management and retirement and discuss important future research directions. Some of the findings in the research showed that project managers that are young with age between 20 to 40 are likely to have chosen the project management field as their primary career. Younger project managers are more likely to have a strong background theory but lack the expertise and expertise compared to the old generation of project managers. Older aged project managers are presumed wiser and high-risk takers compared to the older generation. They also tolerate mistakes from younger project managers. Younger project managers tend to be more innovative and rely on tools, software, and shortcuts to get the job completed. According to Shears (date), there is a lack of supporting the fresh or younger project managers that start their career as a project manager. Hence, younger project managers tend to change careers, and there is a chance of over 30% that they will change careers within the first 10 years and will no longer be part of the industry (Cattell, Bowen, & Edwards, 2016).

Many organizations have a high turnover of project managers, and a solution to this is to support the young generations and encourage them to be proactive and support them with education, training, and mentorship (Ekrot, Kock, &Gemünden, 2016). Furthermore, the older generation of project managers is usually kept on specific projects until the project is complete, which means not much time is invested in mentoring the younger generation of project managers. Also, many organizations, due to the lack of benefits, offer younger project managers an opportunity to change or transfer within departments causing a big gap of specific project experience.

Organizations should encourage PMs that are mature in age and experience to commit to a knowledge transfer because many senior project managers end up retiring without sharing their industry-wide experience and fail to mentor others. Organizations should develop formal mentorship structures for project managers to interlink the past and future generations to have better control of the generational transition. Project Managers, above 50 years, have been working longer than before due to improved health systems which include treatments to improve their wellness and health (Sandin et al., 2016). This is the case in most developed countries, especially in the USA, due to the advance health system technology. Retirement is also being affected in many countries, and in the USA, the retirement age has increased, which influences project managers working in the IT industry (Lain & Loretto, 2016). The trend shows that older working project managers are staying longer before they retire, which is creating a new challenge in workforce diversity (Rappaport & Richter, 2013). Furthermore, discrimination is known to be affecting many organizations, and age discrimination is the most widespread form of discrimination across many sector Zaniboni (2015). The age may have an influence on project manager's performance since the focus on younger project manager's technical aptitude, and ability may have a significant impact on older project managers (Dulaimi& Langford, 1999).

Younger project managers compared to the older project managers have greater significance on project control and extra-organizational objectives (Hoxha & McMahan, 2015). According to Hoxha and McMahan (2015) project managers are influenced by age, especially during the project lifecycle, which affects project implementation and delivery. However, older project managers proved to have a tougher decision in changing a decision or strategies on projects (Meredith, Mantel, & Shafer, 2017). Furthermore, one author was against the idea of linking PMA to project success and argued that project manager's age does not have a negative impact on projects (Aga, Noorderhaven, & Vallejo, 2016).

**Project Manager’s Years of Experience**

PMY influences project success and increase skills and talents (Meredith et al., 2017). Most project managers with many years of experience in the IT industry are high achievers. According to Ahimbisibwe, Cavana, and Daellenbach (2015).experience plays a critical role in project managers' success. Project managers with many years of experience will be good at planning, leading, directing, and managing projects (Kerzner, 2017). For example, some typical responsibilities of a project manager include project planning where project managers create frameworks or processes to guide the entire project from ideation to fruition including clarifying scope, estimating necessary resources, anticipating timeframe, and communicating strategy (Harrison & Lock, 2017). Experience also includes leading others where project managers lead the project team through the process, meaning they have excellent communication and people skills. Project execution where project managers are likely to engage in tangible activities required for moving the project forward increase by years of experience. Time management comes from experience, and when project managers have sufficient experience in time management, they can better plan, schedule, and resolve issues that arise on projects. A project manager with time management experience has high communication skills to effectively communicate with team members and other stakeholders (Maslach & Leiter, 2016).

According to Paton and Hodgson (2016), project managers' experience influences their skills, performance, ability to achieve results, and overall project success. Paton and Hodgson conducted research on over 38 project managers with various experiences across various industries, including IT project in many countries, and the data collected showed experience influences project success.

PMY leads to project success because the more experience PMs have, the better they are capable of meeting deadlines such as project budget. Project managers with extensive experience are good at forecasting the project, estimating the deliverables, and meeting project budgets. If an unexpected financial issue arises, it's up to the project manager to manage and reallocate resources where necessary. Documentation control is also important since project managers keep a record of each project's progress and are familiar with tools such as data collection and status reports. Maintenance of the project is also part of the project manager's role to maintain, troubleshoot, plan, schedule, and manage the project. This includes developing a robust plan and implementing actions to guarantee the success of the project. During the hiring process, project managers are selected based on their skillsets and years of experience, which are necessary to drive project success in organizations.

Project managers with many years of experience may have a higher level of knowledge and could achieve desirable project outcomes compared to project managers with fewer years of experience (Brière, S., Proulx, Flores, & Laporte, 2015). There has been a wide range of findings concerning the relationship between years of experience and project success. Many organizations claim project managers are leaders with potential, but the hiring process across companies preselect project managers based on how well they answer questions and communicate (Sankaran, Vaagaasar, &Bekker, 2019).

Organizations that realize they ought to be looking for suitable professionals may not know how to recognize the skills they need. Addressing the skills shortage and encouraging project managers to join the profession has been focused mainly on obtaining the project managers from a wide range of backgrounds and not by project manager’s years of experience (Furnell, Fischer, & Finch, 2017). Hence the need to understand how PMY, talent,and skills is significant to understand the impact on project success

**Competencies**.Competencies are linked to years of experience. The more experience a project manager has the higher outcomes they would achieve (Blixt&Kirytopoulos, 2017). A project manager with a lack of expertise tend to struggle in delivering projects, and project managers with vast experience tend to complete projects and provide desirable outcomes (Blixt&Kirytopoulos, 2017). Skills and competencies are factors that are linked to years of experience. Competent project managers can be described as individual's that can perform and deliver positive outcomes. Project managers with high competency are described as top performers and can predict behaviors in a wide variety of situations, tasks, and can make things happen.

A research was undertaken by Bredillet, Tywoniak, and Dwivedula (2015) to understand and explore how and what makes a project manager competent. The researchers brought many good outcomes and added-value insights on the topic by analyzing the definitions, and assessment approaches of project manager competence. The major standards by PMI, IPMA, and GAPPS were also considered for review from an attribute-based and performance-based approach. A competency is the specification of knowledge and skill, and the application of that knowledge and expertise, to the standard of performance expected, and competencies are defined as motives, traits, self-concept, social roles, and knowledge. Competencies are used to set clear expectations for project managers. Project managers with competency can provide direction to the team and excel the level of performance on projects. They also offer a framework for career growth and improvement and establish professional opportunities, including horizontal and vertical moves within organizations.

Competency streams can be categorized into three groups: technical, behavioral, and contextual competencies. Competencies are a behavioral approach to emotional, social, and cognitive intelligence and are defined as a capability or ability consisting of alternate behaviors organized around an underlying construct. The personal competencies combined with the performance competencies relate to the interpersonal skills to enhance the program manager's abilities to perform or execute, the performance competencies successfully. Competencies can vary in nature which includes emotional intelligence competencies, self-awareness, emotional self-control, and social intelligence competencies, social awareness, and relationship management competencies. Competency is an important method that is related to project success and is linked to employee skills competency as a concept which is based on behavior to research competencies.

**Performance:**Project performance of project managers increase as their years of experience increase. Some authors attempted to evaluate time, cost, and performance and explored how performance influences project success (Matthias, Patrick, & Konrad, 2017). The Barnes triangle was the commonly used criteria for identifying success rate on projects, and these findings showed that Barnes' ideas are an integral part of satisfaction on projects. Project managers and stakeholders may have different views on project success. Some project managers also have trouble identifying if projects are a success based on their performance. Project is considered a success which is an acceptable concept among most leaders when the project achieves the required quality, time, and scope, and the final product is accepted by stakeholders.

Researchers have identified that experiences and performance influences project success (Rezvani et al., 2016). According to Santos-Vijande, López-Sánchez, and Rudd (2016), project managers in different industries that perform and work towards a clear goal to guide and conscientiousness their work is beneficial and produces positive outcomes. Performance is also linked to motivation (Menges, Tussing, Wihler, & Grant, 2017) hence, when project managers have a high level of motivation, they tend to motivate the team to deliver positive outcomes on projects. High performance requires a project manager to have a high degree of concentration, and this characteristic comes from experience. Experience has a positive impact on performance; however, it should be stressed that at present, few studies on project teams investigate the effect of performance and how project managers play a role in success on projects. Thus, project managers with many years of experience bring performance and help the organization achieve project expectations considering that project performance varies in nature.

**Risk:** PMY affects project risk. According to Hopkinson (2017), project managers with good experience can manage risk and place controls to minimize the risk.

Risk management tools are used by project managers to help them deliver outcomes that lead to project success. Project managers that lack experience in IT are subject to mistakes and risk can increase affecting project success.

Project managers with enough years of experience can reduce the risk by managing projects efficiently. They can also manage the risk by using risk management stimulation tool as an approach to rectify the weaknesses that arise from projects. Scholars such as (Batistič& Kenda, 2018) further argue that organizations that hire unexperienced project managers tend to bring confusion among team members, and risks that arise on projects are not properly dealt with. The failure is caused because the project manager lacks experience at investigating risks rather than seeking opportunities.

Resistance in carrying out certain risk mitigation approaches can be a gap between PMY, and there understanding of theory and practice. Risks on projects are managed by ensuring that project cost, schedule, and objectives are tracked and achieved. Project managers should have enough experience and understanding to implement risk management, and professional knowledge is the key component to project success which also comes from the years of experience they obtain from the industry. Methods used to manage risk, is through proactive management. According to Kerzner (2017), when a project manager uses a formal risk management process, the project will have a high rate of achieving success.

**Project Manager’s gender**

Gender-related review articles have been published, and many focused on gender differences with respect to gender inequality in organizations as a phenomenon that can be seen in organizational structures, processes, and practices (Stamarski& Son Hing, 2015). There is still much to be learned about gender characteristics and how these characteristics interact in achieving project success and the results of the project outcome between men and women. Studies with varying methodologies show that women can achieve the same results as men; however, due to selection criteria's and processes across many organizations, women are less likely to be hired than men in the workplace. Project success can be achieved by either gender; however, revealing which gender can produce progress should be further evaluated. Progress success has been mostly realized by male project managers, and this is because male dominate jobs compared to female candidates. Female project managers are evaluated more negatively and recommended for employment less often compared to male candidates. In summary, women face a distinct disadvantage when being considered for male-typed jobs hence. To understand which gender achieves the highest project success rate, I came across a survey. Many surveys have shown that women tend to perform the same as males. A performance experiment was conducted, and the results showed that male dominance had been the case for many years in the field of project management. The research was to examine the different genders and to examine the gender that would more likely achieve project success. The research was carried out by (Hekman, Johnson, Foo, & Yang, 2017). Authors conducted research based on different genders that influence projects. The authors showed that most females are not taking roles of project managers and thus has impacted the recognition of females across many industries and to answer the question that arises in the minds of many in addressing this scarcity of whether women project managers are the equal of male project managers (Klopotan, Buntak, &Drožđek, 2016).

Leaders that have outstanding personal characteristics, such as communication skills, decision-making abilities, and technical skill are good project managers. In general, men and women present unique characteristics or capabilities that are associated with each gender. According to Rodríguez, Montequín, Morán, & de Arriba (2017) A research was conducted that analyzed the 360° feedback results of nearly 14,000 project managers and leaders to identify the differences in how men and women were rated against a set of 18 leadership competencies. According to the research, men and women excelled differently in certain aspects, and project success was achieved by both genders. Male project managers had leadership styles which are strategic and visionary, and females had leadership styles leaning towards being social. The study also showed that females were better than males in prioritizing and multi-tasking and are good achievers and can deliver tasks on time and achieve project success on projects. Females also stood out to be socially sensitive and were good listeners. However, results showed that males could make strong first impressions and express views with confidence, and able to present how capable they deliver tasks across projects. Males were also less socially-sensitive compared to females and were focused more on being rational, practical, and delivering outcomes. Organizations continue to be filled primarily by males compared to females, and the result showed that male leadership as more intellectual and female leadership as more social. In general, Females continue to be a minority in the project management world.

Women's concerns were of little interest to a male-dominated society for many centuries. The gender factor that led to the increase of females in the job market to work on projects and achieve project success changed because of economic needs, technological advances, demand for products and services, and other factors. Education and years of experience are contributing factors in the determination of gender hiring in the workplace. The sex component appears to show statistical significance between males and females that hold positions which require an associate degree. The indications also showed that a bachelor's or higher degree affects wages positively for males and females. Projects that were led by females were very low since the demand that led to the equal treatment of females in society increased. The labor force on projects was divided, and females were working more as secretaries and administration while males were dominated on management roles and major projects which were high paid jobs. Hence, project success previously showed more males than females due to the inequality of the workforce.

The US Department of Education increased the demand for females to obtain higher education to increase the numbers of female workers, especially project managers on projects (Grundy, 2017). Females were enrolling in increasing numbers to obtain undergraduate and graduate degrees during the last decade. Findings also showed that males were more educated than females and held higher educational attainments far earlier than females. This statistic proves that there was higher project success among males than females for the past few decades. The results can be evaluated, and one can logically conclude that females cannot compete with males in a number of males to females working on projects. The fulfillment of educational requirements allowed women to enter the workforce and take project management jobs. This change created numerous problems to evaluate the number of success both genders have achieved. Bureau of Labor Statistics showed that salaries in the aggregate earned by female professionals are lower than those of their male counterparts which can also be the cause of female dissatisfaction on projects due to the wage difference. Furthermore, woman activist found during their research that female workers worked less than males due to many factors such as parental leave relating to children (Schaller, 2016). Females worked fewer years and had less experience compared to males during their lifetime, and project teams may provide an ideal situation for women to demonstrate their competence and capabilities (Haines, Deaux, &Lofaro, 2016).

Brescoll (2016) research showed that females face negative stereotypes in the workplace due to displaying themselves too ambitious. Brescoll (2016) research also showed that project management roles were segregated and gender-stereotyped and that men were represented in positions of authority in a high number. According to the Project Management Institute (68% of males and 32%, females experience less participation and greater role incongruity in both project management roles.

**GPT Success Rates**

Chipulu et al. (2014) undertook a research which included project success and failure indicators (PSFIs) which reduces negative impacts on projects. The authors quantified the problem of GPT success rates. According to Julia King 30% of IT projects fail and could have been avoided. Frese and Sauter (2003) criticized Julia King and demanded that her statement of 70% of projects are successful is not entirely true since Julia failed to outline if the projects met the objectives, cost, time, scope and delivered the required benefits. The rate of the successful projects should be further investigated and depending on who considers the project was successful the rate of success could have been lower. A project should be considered a failure when the objectives are not met and benefits were not realized.

According to Kelly (2007) IT firms are among the most complex projects and the largest IT firms experienced a rate of over 40% of failure. There are many factors that causes projects to fail such as poor management, incompetent project manager, unclear scope or requirements, a lack of understanding and communication among the team, and the complex technology that continues to emerge (Kelly, 2007). A study undertaken by The Standish Group International reported that approximately 66% of IT project fail in terms of time, budget, or scope (Neumeier, Radszuwill, &Garizy, 2018).  A cross-sectional, world-wide, online survey which included 254 respondents relating to the factors of project management methodology (PMM) and project success (Joslin &Müller, 2015). Analysis indicated that 22.3% of projects where successful due to the project having solid PMMs, and the main cause of success is supplemented by the project manager. The project manager plays a core role at implementing PMM by managing the project. Academics suggested that the main benefit are from project manager’s insights into PMMs' that increase success on projects. Dennis Lock (2017) wrote a book which he linked how projects are successful and how Project management cannot succeed without support from project managers managers. His research focused how project managers authorize and manage resources to carry out functions that lead to project success. Many organisations deliver high performance improvements with projects completed early and well under budget as a direct result of project managers. Project managers can vary in characteristics and there are many factors that lead project to succeed such as dedication, skills, and logical planning. Projects that achieve benefits would not have been possible without active and enthusiastic support from the project manager.

Successful project managers are good at deciding and implementing techniques that work best on their projects. However, many methods exist on how a project can be managed such as the application of techniques and procedures. Good project managers can also implement framework, scheduling, planning and make proper and good decisions all these great strategies can help a project achieve the benefits required. Understanding how PMA, PMY, and PMG can help organizations determine how projects can be implemented properly so they can focus their attention on hiring the right project managers and above all the ability to lead and motivate others. Innotas, a Cloud portfolio management provider, conducted a survey in 2013 which showed that over 50% of projects failed during that year and another study was done which involved 126 IT project leaders in the year 2015 where the leaders admitted that 55% of projects, they worked on did not go right and were considered a failure (Chua &Comendador, 2017).. This failure rate was a 32% increase from 2014 the previous year. The failure rate rose so the author suggested that this is alarming and there should be a need to understand how projects can be completed on time and within budget. Thus, one of the purposes of this study is to address the alarming project failure rate. My research would focus on project manager’s PMA, PMY and PMG because the author revealed that that the key to solving the project failure rate is not through adding more project governance, improving project stakeholder engagement or adding more reporting hence there are other factors that are contributing to project failure.

Dr. Daryl Carlton, research director at Gartner, explained that by simplifying business processes, corporate bureaucracy, and project requirements, there is a higher chance for project success [3]. Furthermore, most IT professionals, whether a project manager, client or member of the development team, make use of a Project Management Information System to identify the work needed to be done and monitor its progress. According to a study conducted by Pellerin, et al., the performance of the project is directly related to the amount of time spent in using the project management information system. It revealed that the more time spent on using the said Project Management Information System, the better the Cost Performing Index (CPI) of the project [4]. Additionally, Alami’s study revealed that small-scaled IT projects are less prone to project failure than larger-scaled IT projects – a possible basis for scaling is the project budget, If the project budget is larger than $350,000 it is considered large-scale project; otherwise a project with a budget of less than $350,000 is considered small-scale project.

Another research carried out by which involved a survey which was aimed to eplore and identify project success factors and criteria. The research also explained the relationship between critical success factors (CSFs) and project success as perceived by project managers. The analysis also displayed how key factors of CSF which include project manager’s competencies, stakeholder engagement, effective planning, motivation and implementation of procedures. The study ranked relevance, impact, effectiveness, sustainability, and efficiency according to their level of importance by the participants of the survey. The literature for quantifying the scope of success factors were to avoid the problems. Projects that did not meet their objectives faced inconsistency and are the most causes that occur on IT projects which makes it difficult to establish accurate unsuccessful rates. However, the researcher in his literature review mentioned that IT projects continue to come short in meeting the objectives and benefits. Also many IT projects are unsuccessful and sometimes only reported outcomes domestically and missed out on statistical global project figures which may suffer at least by rates similar to those of their domestic counterparts.

**Critical success factor theory**

The critical success factor theory serves as the theoretical framework for this study. This study integrated various writings pertaining to the significance of PMA, PMG, PMY, and project success. The literature review will include prior study subjects, background of the study and explain researchers’ thoughts about the topic. The literature review will also include correlations, contradictions, gaps in the research, and suggested further research.

Managing projects through processes, tools, and techniques are effective ways of achieving project success which remains vital for private and public sectors. The search for increasing project success has been a great motivation for project managers and organizations.

The search for a better way on leadership approach and management motivation was led by the founders in the discipline such as Frederick Taylor which specialized in scientific management principles (Taneja, Pryor, & Toombs, 2011) and Peter Drucker the inventor of modern management (Drucker, 2002) which both worked on The practice of management to change the course of management and introduce better project management methods.

While projects are essential to the growth of businesses, there are many projects that fail. There were three main reasons why projects fail (a) problems with individuals, (b) problems with processes, and (c) risk and issues on projects. Issues occur from higher leadership (Albliwi, Antony, Abdul Halim Lim, & Van der Wiele, 2014), to teams and individuals (Dwivedi et al., 2015). Project issues occur throughout the project life cycle from discovery phase, delivery to hand over (Hjelmbrekke, Hansen, &Lohne, 2015). The literature review also includes project related issues relating to uncertainty and complexity projects. Project composition, logistical issues, and macro external environmental factors are also components that create issues on projects.

The term key success factors can be used in four different ways: a) as a necessary ingredient in a management information system, b) as a unique characteristic of a company, c) as a heuristic tool for managers to sharpen their thinking, d) as a description of the major skills and resources required to be successful in a given market. The actual key success factors on a market, and those key success factors perceived by decision-makers in companies operating in the market, will be different. A number of psychological mechanisms result in misperceptions of the causes of success on a market. Both the actual key success factors on a market, and the way they are perceived by decision-makers, are amenable to scientific analysis. Such an analysis can improve performance of decisionmakers on that market.

A theory and/or method contributing to an understanding of the key success factors in an industry would without doubt be of considerable academic and practical interest. The key success factor concept has, however, been used in a rather diverse way in the literature, as will be shown shortly. It is the purpose of this paper to sort out the uses of the concept to date, and, based on this propose a new view of key success factors. This view will then be related to existing theories and methods, leading to an agenda for empirical research

The major causes of project success are the value perceived by stakeholders. The organizations obtain great value at low costs by using existing project manager’s skills and the project team.A key success factor is a skill or resource that a business can invest in, which, on the market the business is operating on, explains a major part of the observable differences in perceived value and/or relative costs.key success factors differ from core skills and resources, which are prerequisites for being on a market, but do not explain differences in value created and costs incurred. They also differ from slack skills and resources, which neither explain differences in value created and costs incurred, nor do they form prerequisites for being on a market.

Key success factors differ in their changeability, i.e., in the degree to which competitors can emulate them. They also differ in whether they are conjunctive or compensatory. Conjunctive key success factors are necessary conditions for superior performance. Compensatory key success factors are areas of excellence and is used for the formation of strategic groups.

Perceived key success factors can be measured by semi-structured interviews with business decision-makers which follow a laddering procedure. Actual key success factors can be measured by collecting objective or semi-objective company data and relating them statistically to measures of relative costs and perceived value.

**The Concept of Key Success Factors**

Theory and Method The use of the key success factor concept in the MIS and strategy literature is traced, and a new view is presented, which defines key success factors as skills and resources with high leverage on customer perceived value and relative costs of a business. Key success factors are distinguished from core, slack, and auxiliary skills and resources. Perceived are distinguished from actual key success factors, and it is argued that empirical research on key success factors should address both. A research agenda is presented, and various methods for solving the methodological problems in that agenda are discussed.

Key success factors in management information systems The idea that there are a few factors which are decisive for the success of the company, and that these factors can be ascertained, was first introduced by Daniel (1961) and later mainly elaborated by Rockart (1979; Bullen &Rockart, 1981) in the context of designing management information systems. Finding that top management rarely used management information systems, they argued that such systems must be structured according to the information needs of the managers. In order to ascertain managers' information needs and link them to the management information system, they coined the term critical success factor. Critical success factors are, according to Bullen and Rockart, "the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department or organization. Critical success factors are the few key areas where 'things must go right' for the business to flourish and for the manager's goals to be attained." (Bullen &Rockart, 1981, p. 7). Rockart's concept of critical success factors is clearly inspired by the issue of optimum match between environmental conditions and business characteristics, i.e., the core of business strategy. The surrounding environment is assumed to possess certain fundamental requirements and limitations, threats and opportunities, to which businesses must align their strategy, skills and resources, in order to achieve success. No organization, according to Rockart, can afford to develop a strategy which fails to provide adequate attention to the principal factors which underlie success in the industry. This provides the rationale for making them the basis of a management information system. Rockart distinguishes between five sources of critical success factors: • The industry, e.g., demand characteristics, technology employed, product characteristics etc. These can also affect all competitors within an industry, but their influence will vary according to the characteristics and sensitivity of individual industry segments. • Competitive strategy and industry position of the business in question, which is determined by the history and competitive positioning in the industry.

Environmental factors are the macroeconomic influences that affect all competitors within an industry, and over which the competitors have little or no influence, e.g., demographics, economic and government legislative policies etc. • Temporal factors, which are areas within a business causing a time-limited distress to the implementation of a chosen strategy, e.g., lack of managerial expertise or skilled workers.

Managerial position, i.e., the various functional managerial positions in a business have each their generic set of associated critical success factors. Critical success factors can thus be characterized by the extent to which they are internal or external to the business, or that part of it over which the manager has control, and, consequently, whether they refer to something which should be monitored or built. Maintenance of technological leadership would be a source of critical success factors which the business can build, while changing consumer demographics would be a force that can be monitored, but not controlled (for more details on critical success factors in management information systems, see Boynton &Zmud, 1984; Ferguson & Dickinson, 1982; Munro & Wheeler, 1980). Rockart has proposed a two-step interview method for ascertaining critical success factors. First there is a round of open interviews, where managers are asked about their views on the critical success factors relevant for the business. On the basis of these, a preliminary list of factors is compiled, which then, in a second round, are rated on an importance dimension (e.g., Boynton &Zmud, 1984; Rockart, 1979).

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