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Business Strategies for Reducing Professional Labor Shortages Within the U.S. Construction Industry

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Walden University

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Walden University

College of Management and Technology

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Leabert Stewart

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2022

Abstract

Business Strategies for Reducing Professional Labor Shortages Within the U.S.

Construction Industry

by

Leabert Stewart

MS, Palm Beach Atlantic University, 2018

BS, Palm Beach Atlantic University, 2016

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

Jan 2023

Abstract

The U.S. construction industry is faced with skilled labor shortages that have made it more challenging, especially amid the COVID-19 pandemic, for project and business managers to meet industry quality standards and complete projects within budget and on time. Grounded in transformational leadership theory, the purpose of this qualitative multiple case study was to explore strategies staffing managers use to hire and retain skilled labor. The data were gathered through semi-structured interviews with six successful staffing managers within the southeastern United States and then analyzed using thematic analysis. The themes that emerged were (a) employee retention, (b) recruitment of skilled labor, (c) mitigation of barriers, (d) effectiveness of strategy, and (e) strategies used to address the skilled labor shortage. A key recommendation for hiring managers is to ensure the advancement of skill labors through the development and continuous application of positive reinforcement. The implications for positive social change include the potential to benefit communities by providing employment and tax revenues.

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Dedication

This study is foremost dedicated to the Lord and Savior through whom all things are possible. Thank you, Lord, for taking me through the intricacies of this journey. To my Late mom, Joyce Tater Stewart who was not formerly educated but made unspeakable sacrifices for her family as a homemaker. To my Late dad, John Stewart who labored intensely as a farmer and shoemaker to provide for his family while living in Ellen Street District, Manchester, Jamaica W.I. To my wife, Dr. Tameeka Pascoe Stewart, thank you for sticking by me with your continuous encouragement. To my children, Abigael, Aamiyah, and Allijah: Never give up on your dreams, no matter the duration or the complexities of the process; always strive to reach for the skies while continuing to believe that you can and will make it with the help of our Heavenly Father, who has control over everything. I, furthermore, dedicate this doctorship to my siblings, Steven, Carrol, Donna, Janet, Leon (predecease), and the rest of the Stewart and Tater family legacy; may future generations of this family strive to gain independence and strength through literacy.

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Section 1: Foundation of the Study

The U.S. construction industry faces challenges amid a continuing skilled labor shortage. In this study, I explored the strategies that project staffing managers used to retain skill labor. I conducted a qualitative multiple case study, using the conceptual framework of the transformational leadership theory, to examine the study phenomenon. In this section, I provide an overview of the study.

Background of the Problem

In the U. S. construction industry, many organizational leaders have struggled to hire and retain skilled professional workers, especially amid the COVID-19 pandemic (Reading, 2020). These workers include electricians, masonry, carpenters, plumbers, and licensed professionals (Toledo, 2015). A lack of available skilled professional construction labor has imposed pressures on staffing managers to achieve productivity while realizing higher profit margins (Schleifer, 2018). The rapid growth of the construction industry has made the skilled labor shortage more pressing for project and business managers. Dealer (2018) noted that 80% of US construction contractors are affected by skilled labor shortages, a problem that may be correlated with substance abuse and job site safety concerns that have increased over the past few years.

The strain of the skilled labor shortage has thus negatively affected the construction industry in several ways. Dealer (2018) predicted that the shortage of skilled labor will have a rippling effect on the construction industry for years to come. Project and business managers must ensure that projects meet industry specifications and quality standards and come in on time and within budget. To do so, they must find and retain

skilled workers, meet project targets, and stay on a financial plan without presenting higher financial proposals for projects (Melenbrink et al., 2020). As noted by Melenbrink et al. (2020), with an aging housing inventory in need of repair expenditures and a growing trend of urbanization, industry leaders need innovative solutions to compensate for a shortage of skilled workers.

Problem and Purpose

The U.S. construction industry has struggled with professional worker shortages that have amplified the operational and financial impact on the construction industry (Razkenari et al., 2020). The professional construction skilled labor shortage in the United States is so acute that, in April 2019, there were over 434,000 vacant construction jobs, which has enhanced the difficulties in hiring and retaining professional workers (U.S. Bureau of Labor Statistics, 2019, p. 3). The general business problem is that in the United States, an acute shortage of skilled workers has been exacerbated by COVID-19, which has caused construction companies to face challenges in meeting industry quality standards and in completing projects within budget and on time. The specific business problem is that some project staffing managers of construction companies lack strategies to address the skilled labor shortages to achieve and sustain business productivity and profitability.

The purpose of this qualitative multiple case study was to explore strategies that construction project staffing managers use to address the skilled labor shortages to achieve and sustain productivity and profitability. The targeted population consisted of 6 construction project staffing managers and contractors from 6 construction firms within

the Southeast region of the United States who have experienced and overcome the challenges of the skilled labor shortage. The application of the knowledge from the study may contribute to the formulation and enactment of strategies for overcoming the labor challenges faced by the construction industry and its leaders. Such strategies may lead to better employment opportunities and contribute to sustaining the quality of life of professional and blue-collar workers and the citizens of communities associated with the U.S. construction industry.

Nature of the Study

I used the qualitative method to gain insights into the strategies of successful construction industry project staffing managers. Qualitative research is suitable to understand firsthand experiences and is favored when retrieving nonnumerical data (Yin, 2018, pp. 17-18). A numerically oriented quantitative method is ideally suited to examine characteristics or correlations among variables, with statistical hypothesis testing (Lewis et al., 2019). I determined that the quantitative method was not suitable for this study because statistical approaches were not conducive to exploring the human dynamics of the studied phenomenon. The mixed-methods approach was also deemed unsuitable, as the mixed method entails a combination of quantitative and qualitative methods. I, therefore, determined that the qualitative method was the optimal approach to undertaking this study.

I used the qualitative multiple-case study design because it is compatible with the qualitative method and aligns with the objectives of this study. The rationale for not using other qualitative designs was the alignment between the case study design and the study

objectives. Travlos (2020) noted that researchers use the phenomenological design to explore the personal meanings of the participants' lived experiences. The purpose of this study was to explore employee acquisition and retention strategies to overcome labor shortages in the construction industry; therefore, a phenomenological design would not have been appropriate. As discussed by Celikoglu et al. (2017), researchers use the ethnography design to explore cultures and the daily activities of group members. The aim of the research was not to explore cultures and the activities of groups. Instead, I sought to gain insights into the effective strategies that construction leaders developed and implemented to address the skilled labor shortage.

Research Question

What strategies do construction staffing managers use to address skilled labor shortages to achieve and sustain productivity and profitability?

Interview Questions

1. What strategies do you use to retain skilled labor to ensure projects are completed on time and within budget?
2. What difficulties do your organization's construction staffing managers face in recruiting skilled labor?
3. How did you assess the relative effectiveness of your strategies for addressing the skilled labor shortage?
4. How did you identify and address the key barriers to implementing the strategies for addressing your organization's skilled labor shortages, and increasing productivity, and profitability?

5. What organizational changes have you experienced since implementing new strategies?
6. How has the COVID-19 pandemic affected the strategies used to address the skilled labor shortage, productivity, and profitability within your organization?
7. What new labor strategies have you implemented to contend with the COVID-19 pandemic?
8. What, if any, incentives do your organization offer staff to encourage employee loyalty?
9. What else can you share about the strategies your organization developed and implemented for addressing skill labor shortage and achieving profitability which we have not discussed?

Conceptual Framework

The transformational leadership theory developed by Burns (1978) served as the conceptual framework for this study. The foundational premise of the transformational leadership theory is that leaders should demonstrate characteristics and abilities in developing employees and the workforce and that they should do so by using motivation and inspiration (Northouse, 2019). The transformational leadership theory is based on the premise that positive employee motivation and reinforcement are vital for gaining the mutual respect of business managers and employees through inspirational leaders. The main constructs of the theory of transformational leadership are (a) inspirational motivation, (b) positive influence, (c) intellectual stimulation, and (d) individual development.

Transformational leaders can thereby create an empowering and enabling environment that fosters workforce commitment. I used the lens of the transformational leadership theory to explore and interpret the data that I collected from my semi-structured interviews with participants. The principles of the transformational leadership theory are widely applied and relevant to fostering organizational change and increasing business performance (Bednářová et al., 2018). The postulations of the transformational leadership theory could therefore aid in understanding the strategies construction staffing managers developed and implemented to overcome the challenges of sustainability in the wake of skilled labor shortages.

Operational Definitions

The operational definitions provided herein may offer clarification to the reader on the terms in this research study as they apply to the U.S construction industry.

Construction industry: The activities and human and material resources associated with commercial and residential development (Alarcon et al., 2019).

Project staffing manager: An individual responsible for staffing, performance evaluation, and compensation (Hang, 2019).

Skilled labor: Professionals who have a specific mastery within specialized areas in the construction industry; this specificity has a positive, if modest, influence on local job progression in non-tradable services (Consoli & Sánchez, 2019).

Assumptions, Limitations, and Delimitations

By indicating the assumptions, limitations, and delimitations of a study, a researcher is able to explain, from their perspective, the academic strengths and

weaknesses of the research data and analysis. As suggested by Ross and Zaidi (2019), researchers must present thorough and trustworthy limitations in the description of research boundaries and scope. The assumptions and the delimitations of the study should be identified in a consistent method.

Assumptions

Assumptions are beliefs from data or information, which are thought to be true but are not confirmed. Assumptions carry risk and should be treated as such. A risk is that a researcher might not fully evaluate the evidence before evaluating the data (Dikova & Schoenung, 2016). It is important, then, to state the assumptions that a researcher holds. The first assumption in this study was that every participant would be readily available to part take in the interview. The second assumption was that the data provided by the interviewee would be truthful and unbiased. The third assumption in this study was that financial data and annual reports of construction companies studied might be useful key performance indicators for triangulation of the results. I also assumed that these indicators were reflective of the strategies used by project hiring managers within the U.S construction industry.

Limitations

Limitations are the hypothetical vulnerabilities, such as communication strategies, that the researcher could face when researching a certain subject matter. Limitations are constraints that go beyond the boundaries of the researcher. A presumed limitation was time constraints in scheduling the interviews without conflicting with normal business procedures. Furthermore, scheduling follow-up interviews with me could have been

burdensome for participants. Limitations were deemed to be any other scenarios that may further discredit the validation of the study.

Delimitations

Delimitations relate to the boundaries, what the study includes or excludes, and its anticipated constraints in understanding the study. Delimitations tend to support the existence of fundamental boundaries, which inhibits a broader scope (Loannides, 2020). Outlining delimitations could further indicate the scope of the study. The initial delimitation of the study was the industry and geographical location, which was the construction industry within the southeastern United States. Another delimitation of this study was the small sample of six construction industry project hiring managers within the Southeast United States. I considered gathering data from geographical regions outside of the Southeast United States.

Significance of the Study

The findings of this study may be of importance to construction project staffing managers as the results may provide insights into how business managers can overcome staffing challenges and motivate individuals within the organization to increase retention rates. The study findings may serve to indicate how organizations can achieve labor productivity and profitability goals. Johnson (2016) noted that providing an environment of principles and ethical standards that results in treating every person, regardless of their title or position, with mutual dignity and respect enhances organizational development through improving productivity. The outcomes of this study therefore may serve as a

guide for construction managers in formulating and enacting recruiting and retention strategies to advance organizational performance.

Also, the findings may add further knowledge and strategies that organizational managers use to inspire and spur employee performance that could catalyze general beneficial social change as well as improved business outcomes. By being more adaptive, transformational, and confident, business leaders may demonstrate the competencies to foster business performance. This may contribute to positive social change through organizational and individual development that benefits communities through increased tax revenues to better serve citizens.

A Review of the Professional and Academic Literature

The aim of this qualitative case study was to explore the business strategies implemented by successful business managers in construction companies within the Southeast United States. The overarching research question for the study was, what strategies do construction staffing managers use to address skilled labor shortages to achieve and sustain productivity and profitability? An expansive literature review that features credible and diverse sources helps differentiate between various related research topics. Paul and Criado (2020) stated that a comprehensive literature review offers a thorough overview related to a theme, theory, and method and displays the integration of prior studies to reinforce and expand the foundation of knowledge. Through a detailed and pertinent literature review, the researcher illustrates the depth and intensity of the research. In this qualitative case study, the literature review included peer-reviewed articles from Walden University Library's business and management databases. The

review of scholarly articles that were critically analyzed and critiqued for this literature review is dated within five years of this research. Table 1 contains a summary of sources perused and used to complete this literature review. I reviewed a total of 228 sources, of which 220 were peer-reviewed journal articles published within the past 5 years.

Table 1

Summary of Sources in the Literature Review

Source type	< 5 years	> 5 years	Total	%
Books	9	2	11	5
Government publications	2	0	2	1
Peer-reviewed journal articles	220	0	220	94
Total	231	2	233	100

Literature Search Strategy

The keywords utilized in the database search of the literature related to the topic of this research, transformational leadership theory and trends on the U.S. construction industry. The keywords included *skilled labor shortage, project staffing managers, business strategy, productivity, profitability, innovation sustainability, diversity, and resources*. The literature review for this doctoral study consisted of an essential assessment, review, and critique of an extensive body of peer-reviewed journal articles. The purpose of a comprehensive literature review is to advance knowledge of the study phenomenon, which in this case was the business management challenges related to skilled labor shortages within the U.S. construction industry.

Transformational Leadership Theory

The transformational leadership theory developed by Burns (1978) served as the conceptual framework. The foundational premise of the transformational leadership theory is that individuals demonstrate characteristics and abilities in developing employees and the workforce through motivation and inspiration. Northouse (2019) noted that the transformational leadership theory is based on positive employee motivation and reinforcement from business managers and constituents, which could foster mutual respect between employees and leaders. The key concepts of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Crede et al., 2019). Transformational leadership theory frequently expands and elevates the interests of employees by creating awareness and acceptance of the purpose and mission of the organization (Asencio, 2016). Leaders apply the tenets of the theory to promote organizational commitment, notably by aligning the values, beliefs, and motives of employees with those of the organization. The advantage of adopting a transformational leadership style is that the charisma, vision, and integrity of leaders can come to the fore and enable employees to cultivate a sense of competence and creative self-efficacy, which contribute positively to productivity (Bonsu & Twum-Danso, 2018).

Knowledge of the principles of transformational leadership and their judicious integration in management could help project staffing managers to formulate and implement suitable strategies for skilled labor that help to optimize productivity and profitability goals. Iqbal et al. (2019) indicated that the application of transformational

leadership theory in project staffing management helps boost employee morale, productivity, and the overarching success of projects. The operations of construction companies could become uncontrollable without guidance on how project managers should articulate the management philosophy to harness skilled labor and achieved desired levels of organizational productivity. The broad-ranging influence of transformational leaders on organizational success is well documented; subsequently, transformational leadership ought to be utilized in projects as one of the critical success factors of business management (Raziq et al.,2018). Transformational leadership leaders perform a pivotal role in engaging and ensuring relevant stakeholders' focus and commitment to project goals, improvement, and results. Transformational leaders also provide support to team-building involvement, which, in turn, often leads to project success (Aga et al., 2016). Maqbool et al. (2017) suggested that 80% of projects are not successful due to inadequate leadership. Transformational leaders generally have a positive effect on organizations as well as on employees. Transformation is typically achieved by guiding and leading change, establishing new strategies, and launching vision-enriching strategies to advance the mission and purpose of the organization (Munyeki & Were, 2017).

Transactional Leadership Theory

Burns (1978) also developed transactional leadership theory. Transactional leadership is different from transformational leadership because it refers to leadership models that focus on the exchange between followers and their leaders. Transactional leaders do not focus on individual growth or personal development (Northouse, 2019).

Northouse (2019) further stated that transactional leaders use a rewards and punishment style of management. Curtis (2018) found that transactional leaders often aim to achieve intermediate goals, while transformational leaders have a more holistic vision and are exceptionally effective. Taylor (2017) stressed that transactional leaders delegate specific command and have clear anticipations with uninterrupted performance assessment leading to incentives or corrective actions.

Sethibe and Steyn (2018) contended that transactional leadership negatively influences creativity, and innovativeness is widely advocated. Stock et al. (2017) found that the formation of an innovative-oriented approach, flexibility in doing business, or reassurance of employees to collaborate and think creativity could not be considered a result of transactional leadership. Meyer et al. (2017) highlighted that transactional leadership is conceptualized and visible mainly at the individual level. Jensen et al. (2019) claimed that transactional leaders seemingly pursue to sustain the status quo by proactively fixing divergences and mistakes instead of focusing on positive changes. On the other hand, Ann et al. (2019) found that transformational leadership training was more effective in the public than in the private sector.

Saeed and Mughal (2019) found that public sector employees seemed less focused on culture, as compared to personnel in the private sector personnel. Employees in the public sector usually placed greater significance on transactional leadership techniques as more rewards and incentives are attached to task achievement by transactional leaders. Abualoush et al. (2020) emphasized that transactional leadership signifies a rapport between leaders and followers that is supported by the exchanges between the two

parties. Junquera and Brio (2017) asserted that transactional leadership is more effective for individualists than collectivists, and the outcome is frequently conveyed in terms of business efficiency. As Xu and Wang (2019) noted, transactional leaders often support the preservation and improvement of established work habits as these help employees to accomplish goals and tasks.

Business Staffing Manager Strategies

Small organizations are often faced with enormous complexities in achieving productivity and profit margins because the leadership of an organization may fail to empower and motivate managers. An organization's management responsibility is to enhance the competency level of managers to ensure that organizational silos are not perpetuated among managers (Forsten et al., 2017). Leaders, in addition, should have ample space to articulate and implement management approaches while focusing on bridging the gap between informational breakdowns within human resources and line managers (Whitehouse, 2019). Therefore, construction business industry staffing managers who understand and communicate organizational silos may enable progressive growth throughout the industry.

Management fatigue is not synonymous with any one organization. Managers not suited or knowledgeable about key operational strategies could present a high risk of adversely impacting organizational profit margins. Researchers have shown that such managers are often stressed continuously and are overworked, which creates poor work quality; furthermore, unhealthy managers do not generally produce healthy workers (Verano, 2019). When there are poor working conditions, it further enables work

environments with stifling effects; unwillingness to reduce other risk factors also enables managers to face additional stresses that could be deemed dangerous and task challenging (Kuo et al., 2019). Known and proven contributors in an organization may find leadership roles stressful but consider them as an opportunity to uncover new ideas (Adatara et al., 2018).

Management fatigue is evident in work organizations of all sorts where there are subjective elements such as the employers' and managers' understanding of what creativity is; independent factors frequently put pressure on and hinder innovative impulses and procedures (Milivojevic, 2017). As technology changes and the economy subsequently shifts, managers must adapt to remain relevant. The advancement and evolution of technology may further accelerate 21st century changes, which have already manifested in the emergence of a new economy and new employees, values, businesses, and business models (Buble, 2015). Consequently, an understanding of leadership fatigue may help staffing managers in the U.S. construction industry to be open-minded in their leadership approach.

The bond between managers and their constituents is directly connected to how productivity and organizational goals are met. People managers are best positioned to improve these challenges to have a more engaging and productive experience (Tucker, 2017). Communicating social opportunities between constituents and managers may ensure organizational stability is achieved within the construction industry.

I analyzed a multiplicity of diverse views in this study. Matthew (2014) stated that an organizational work ethos is significantly related to a firm's level of innovation

compared to innovation in its industry. In many cases, there are gaps between the organization's various processes that create adverse effects on the overall aspect and outlook of the organizational profit margins because of the lack of congruence (Dheeraj & Shusma, 2017).

Schnellbaecher and Zacharias (2017) stated that senior management leaders need to have a top-down perspective toward codevelopment. Schnellbaecher and Zacharias (2017) further articulated a favored strategy on how leadership styles affect the innovational outcome. In many instances, the challenges that enhance managers' stress levels are based on ethical behaviors (Tweve, 2016). Harnessing such views may further ensure that managers are aware of personal biases. Janicijevic (2017) stated that because an organization functions through the interaction of its components, the consistency, harmony, and balance of the components ensure that the organizational functioning is harmonious and without unnecessary friction and tension. This may allow the organization to be more effective and perform better.

Odendahl (2017) noted that to guide an organization, leaders need to embrace a leadership style that emphasizes cooperation. Odendahl stated that communicating with representatives of the practice group could help establish a culture where everyone feels included, enabling the fostering of environments that enhance the development of future leaders. Yet many managers lack interpersonal skills that are necessary for them to articulate their positions. Researchers have found that the methods used by managers are not characterized by the rigorous procedures used by researchers (Bob & Marek, 2017). Such a managerial approach constantly creates turmoil within an organization and could

lead to a breakdown in procedures (Holt, 2012). Insufficient information and support, low career acceptability, and less career adaptability could lead managers to disengage from their work and the demands for socially responsible leadership (Heslin, 2014). Many of the problems that midlevel managers face are based on the lack of comprehensive protocols (Bilgehan et al., 2016). It is therefore important to understand the processes of an organization.

Anderson (2015) noted that successful businesspeople would invariably indicate they have had a great mentor at some point in their career, furthermore, that success takes dedication and hard work, but the passion with some help along the way can change a career path to one of leadership. Abu Baker et al. (2017) noted that because project teams in the construction industry shape the primary focus of the industry's project life cycle, a high-performance construction workplace facilitates employees' technical and innovation skills through team development. The authors also affirmed that enthusiastic team structure and team improvement practices tend to be essential parts of a project's life cycle and affect a company's overall project accomplishment. Some finality to these thoughts may in what Khattak et al. (2016) stated, notably that project managers dealing with practical, administrative, environmental, and overall difficulties of public sector engineering infrastructure projects should have capabilities of leadership, good management skills, good communication skills, cognitive ability, effectiveness, efficiency, honesty, and result orientation.

Business managers striving to articulate growth should comprehend how to succeed with organizational change. One of the main factors in how any administrative

change succeeds is knowing how change recipients react to the change initiative (Bollingtoft et al., 2019). When positive behaviors are motivated from within and strengthened by the adjacent culture, the presence of the CEO nearby is not essential for outstanding performance (Mattone, 2016). The extent of the change looked to be measured in affiliation between the agent's leadership performance and recipients' resistance, indicating that representatives and recipients vary in which change leadership actions they perceive as increasing or declining resistance at different stages of change complexity (Vos & Rupert, 2018). The practical results may have proved Lewin's central point, notably, that the insights of the social group, dialogue, and participation are imperatives for significant action and change (Lehmann, 2017). Construction staffing managers striving to foster positive behaviors may embrace organizational progression by creating an environment where individuals desire to work, hence, reducing skilled labor shortage.

Managers may need to understand ways to improve the chances of performing positive change management efforts in organizations (Cohen, 2019). Technology has advanced, and the responsibility of personalities within organizations has changed; as a result, leadership specialists have recommended that the role of leaders in organizations could significantly change in the future (Harms & Han, 2019). Many global leaders now are aware, that they must fundamentally change their mindsets and move away from an inflexible position of just achieving business growth (Hysmith, 2017).

Managers could understand the continuous importance of balancing the organization with an active management engagement approach, displaying a sense of

common purpose with individual interests and objectives. The adopted leadership strategies must be dynamic and flexible enough to accommodate the evolving nature of the contemporary and evolving business environment (Jucevičius et al., 2017).

Advancement and change management tend to be of significance for many organizations. Nevertheless, despite such understanding, most organizations tend to fall far short of their espoused goals for both. An important cause why many organizations struggle is because they treat leadership development and change management as separate rather than unified challenges. Cultural shifts cannot occur without leadership, and the effort to change culture is the predicament in which leadership is developed (Kelly et al., 2016).

The ideal way to augment and help managers evade leadership illusions is by providing training that presents concepts and skills, which may further enhance strategies used in addressing skilled labor shortages. The benefit of reaching a larger population of management and establishing a group learning dynamic is perhaps more feasible for managing change rather than encouraging managers to make advancements independently. Training can also be by working with professionals or an executive coach (Warrick, 2019). In many organizations, the root cause of disagreement to change is that employees recognize and care for their organizations. Employees are usually concerned that after the change, the association will no longer be the organization they value and identify with. The greater the uncertainty surrounding the change, the more employees may foresee such threats to the organizational identity they hold dear (Venus et al., 2019).

Once internal consistency and harmony are achieved organizations, tend to remain unchanged, and hence often resist any kind of change that might jeopardize this harmony (Janićijević, 2017). Seago (2016) noted that undesirable leader's practices nurture an unhealthy, even toxic, culture in the organization, which leads to distrust. Such managers therefore often behave unethically, disempower employees, play favorites, and put personal needs and objectives first. Seago also stated that 91% of North American CEOs and chief financial officers say culture is essential to an organization. More than half say culture significantly affects productivity, company value, creativity, profitability, and growth rate. Janićijević also noted that 91% said, that company's culture boosts its value. Martin (2017) indicated that organizational performance drives organizational sustainability and leadership management. Martin contended, that action too, therefore, leverage employee engagement to enhance strategy implementation, productivity, and profitability, may place organizations in a vicious downward cycle; hence, having a strategy is essential.

There are invariably tradeoffs between exploiting routine opportunities to serve existing customers' needs versus finding new avenues for growth. If an organization does have an explicit strategy for investing in diverse areas, all the pressures will be to invest in what would be routine, such as conservatism potentially limiting opportunities (Eucher & Pisan, 2019). Okuyama (2017) noted that innovative management would be essential for organizations in any sector to integrate these development goals into strategic plans and operational activities in hopes of realizing future aspirations. Construction staffing managers attempting to fill the skilled labor shortage gap may find it feasible if they

communicate and strategies more methods of understanding what is affecting each staff member. Liu (2019) noted that knowledge management is a great opportunity and a challenge for organizations and individuals. The intrinsic terms that corporate organizations possess include adaptability, application, and creativity.

To respond to modifications in a resource-related context, 'knowledge' has become a managed resource. The concepts of grit and positive management are essential to ensure and achieve exceptional performance (Schimschal & Lomas, 2019). To comprehend the differences in organizational visions, there must be an inquiry into motivating managers, especially at the top and middle levels (Zalesna, 2016). Great management inspires, coach, and develop others through skillful coaching, and create an environment of learning and empowerment. With the tone at the top, and through innovative management development programs that are actionable and sustainable, coaching has the power to become the way of doing business (Hamilton, 2019).

Building a good working environment is important for construction staffing managers attempting to be progressive in retaining skilled labor. Business managers should never make it be just about the construction project or shareholders as wage challenges, training, governmental policies, and experience are important challenges relevant to the skilled labor shortage (Aiyetan et al., 2018). The objective of management, therefore, should be satisfying shareholders and customers by creating value through in-house processes and performing organizational internal processes functions as the basis for improvement for customers. Retaining skilled labor enhances

the satisfaction rate of shareholders and customers, which instills confidence in the organization and the construction industry (Kunene et al., 2019).

The success or disappointment of a construction company is ostensibly, to a significant extent, dependent on the performance of construction projects it undertakes, which, in turn, rests heavily on the performance of its construction project managers (CPMs). The crucial need for increasing CPMs' motivation is often a significant concern for construction firms and the building sector. The impact of project managers' involvement on the choice of strategies for minimalizing information irregularities in construction projects, some inter-organizational factors are considered, and the relationship between the project owner and the contractor is extended to include their respective project managers (Kaixun, 2019).

Sustainable strategies and business ethics are becoming pivotal in determining the success or failure of organizations in the construction business world (Rattalino, 2018). Business managers must choose sustainable causes because the consistency of focus and enthusiasm for a cause can serve to maximize the chance of building solid and meaningful partnerships with communities, builds credibility with stakeholders, and ensures CSR initiatives are more sustainable in the long term (Loosemore & Lim, 2018). All businesses must enhance their capability to innovate to stand out in a complex, and constantly changing competitive environment (Wu, 2017). Operations strategists usually focus on how a firm delivers value, while business counterparts may focus on what to deliver and where. Lean is an operations strategy aimed at prioritizing flow efficiency, and in construction, the empirical underpinning of operations strategies has been limited.

The aim is to capture how perceptions of operations strategy in construction practice align with existing theories of operations strategy organized in decision categories (Simu & Lidelöw, 2019). Strategizing a good business plan may be a great tool that may assist construction staffing managers to achieve their goal of retaining skilled labor.

The visions and strategies of managers in the construction industry must be tailored around long-term solutions. A solution must be articulated for a progressive view of the organizational outlook on education (Henry, 2020). Organizations should align their recruitment strategy to a vision; analyzing the global market developments is an essential factor because several of the strategies are intended to generate revenues and increase sales. Businesses should also qualify these global markets by identifying if a challenger is located surrounded by the market; having a domestic competitor can create substantial barriers for global companies to enter international markets (Landry & Mclarney, 2019). Business managers striving to achieve the success of the strategy and the impact of interactions between environmental uncertainty, business strategy, and firm performance should be well informed about the competition environments that highlight the companies that can provide a harmonious coexistence.

Strategy is an essential factor that directs the organization's affiliation with the environment, affects the internal structure and procedures of the organization, and thus often improves the performance of the enterprise (Eker & Eker, 2019). The construction industry is frequently referred to as a highly viable arena in which contractors must outperform competing firms for survival. Contractors are eager to explore practical ways to improve client affordability and outdo the competitiveness of rivals. Business

effectiveness is contractors' competitiveness at the construction project level (Keung & Shen, 2017). Many strategic management scholars have examined how strategic agility helps in improving firm performance.

The significance of strategic responsiveness in countering global trends in different industries further expounded on the accomplishment that an organization differs from its strategic insight and foresight towards its contestants, customers, contractors, allies, and governments (Arokodar et al., 2019). Business managers frequently carry the most considerable burden of implementing organizational strategic plans. Managers tend to be more loyal to an organization when there are mature executives as supervisors. As a result, leadership is the main reason employees stay at a company or leave (Win, 2018). As the COVID-19 pandemic brings dismay across the globe, project staffing managers must strive to implement strategies that uplift organizational members. Place (2020) emphasized that as the coronavirus crisis continues to affect the construction industry, managers should concentrate on developing mental strength and using positive psychology to promote a more productive and successful workplace.

Project Management Staffing

Project management may vary in each organization, based on size, culture, or demography; therefore, project managers within the construction sector must be familiar with techniques and methods to apply them effectively (De Oliveira Santos & Monteiro de Carvalho, 2020). Project staffing managers are responsible for overseeing the project in its entirety, including the recruitment, hiring, redeployment, transfer, attrition, and dismissal of employees in teams (Martínez-Costa et al., 2019). Project staffing managers

are faced with various complexities, such as management and administrative technicalities, that add to their simple objectives, which makes it harder for many projects to be successful (Marnewick, 2020). Many skilled workers may also desire to work in an environment that is more conducive to personal belief systems, which also may include the expectation of good pay, adequate health insurance, and a positive work environment that promotes growth. Akinradewo et al. (2020) emphasized that the challenges for many project staffing managers perhaps lie in optimizing and harnessing the wealth of experiences and the insight of what produces total commitment, and this often is lacking.

Technological advancement and constructional development may have fostered a greater need for project management, which has become essential across many industries. An organization management environment furthermore can be more taxing for a project manager than leading project team participants, in the efforts to accomplish a project's critical elements of time, capacity, cost, quality, resources, and risk to achieve an organization's objectives (Haley & Henkel, 2020). Organizations are constantly making demands of project managers with many diverse responsibilities (Liselore et al., 2019). Cote (2019) indicated that the rapid growth of the construction industry has also created changes in how project staffing management approach hiring and recruitment, like the profession, is constantly changing due to new challenges on the global scale.

Several factors are considered by organizations when choosing or contemplating what may motivate project staffing managers to take on the task of the challenges associated with project management, as stated by Lubin (2020). Lubin further remarked that monetary incentives and organizational culture are driving factors that motivate

many project staffing managers. Ekrot et al. (2018) noted, that if organizational leaders wish for fully engaged project managers, they should recognize that engagement results from a strong rapport between them and the project manager. Buckman & Goodall (2019) observed that employees are eight times more likely to be fully engaged in their work when they trust their managers.

Prosci (2018) asserted that it is essential to have the supervisors and other staff on board, and the buy-in obtained, to assist the project manager through the changes. Augmenting the comprehension of the challenges that have created the skilled labor shortage, may be an important part of solving the problem that has continued to slow the construction industry. The solutions may be there. However, require innovation in recruitment and retention strategies.

Anderson (2017) also suggested that it is evident that having a supportive relationship with supervisors is an essential facet of project engagement and organizational success. Harned (2018) noted that when an organization's leadership encourages project managers to set and oversee professional goals, it can be a great catalyst for careers. Green and Stellman (2018) stated that project staffing managers face complex challenges and must manage the risk factors. Altonen et al. (2020) stressed that the accomplishment of projects undoubtedly depends on project management staff and particularly on the skills of project managers. The manager's accomplishments and abilities are often based on the achieved proficiencies. Enhancing, therefore the project managers' motivation often impacts increasing the project accomplishment and productivity (Abbasi et al., 2018).

Gupta et al. (2019) noted that many project staffing managers who generally have demanded a larger workforce, increased financial budgets, and more time to complete assigned tasks, have been found complaining that people issues have been far more challenging to handle than the unavailability of physical resources. Project staffing managers have therefore often realized that recruiting and adequate staffing employees are profound. Gupta et al. (2019) also stated that many project managers fail because of inadequate staffing. related to staffing optimization, Farooq et al. (2020) indicated that around 60% of all these projects fall short of meeting budgetary and timeline expectations, not because of financial obligations, but rather because many project managers did not value the importance of how they articulate people skills to constituents.

Muhaimin (2020) asserted that most organizations fall into one of four project managers categories, deciding whether the project manager fails or succeeds. The four categories are: (a) The prophet, who tends to seek opportunities outside the scope of current business strategies; (b) The gambler, who often seeks and follows strategies within the scope of the business plan; (c) The expert is the type of project manager who seeks business opportunities outside the business strategy based on reliable data; and (d) The executor, a type of project manager whose skills depends on motivating followers to execute a rigorous strategic plan. Muhaimin (2020) also noted that various project managers might battle in their collaborations with each other.

Project success or failure is usually based on how well a project manager aligns the formulated strategic approach (Muhaimin, 2018). A project manager's personality can

be a significant factor in determining if the project is a success or failure (Abbas et al., 2017). Construction industry project staffing managers who focus on individual personality traits may assist in the harnessing of a strategic niche that is needed in the industry to acquire and retain skilled labor. Therefore, having competent representatives of the team capable of taking on the accountability for leadership when it is essential is paramount (Sweeney et al., 2019). The achievement of the construction project is often contingent upon how well the project management articulates and executes the overall approach of the project plan (Hwang et al., 2020).

Construction project staffing managers are faced with a surmountable amount of stress that enhances the possibility of being burnt out by the mid-40s (Yang et al., 2017). The project staffing manager furthermore is responsible for various aspects of the day-to-day project, which can create an environment with long work hours, scarce resources, and uncertainties, thus, increasing and intensifying the project manager's stress (Egbu et al., 2018). Abdullah et al. (2018) indicated that technical aptitudes were recognized, as including the ability to manage: staff, materials, labor, plant, sub-contractors, safety, money, quality, time, environment, site administration, preconstruction activities, project closeout, and handover, third parties, computer literacy, and construction contract. In summary, project managers have an array of responsibilities, the management of which can lead to burnout.

Skilled Labor in the Construction Industry

Consoli and Sanchez (2019) asserted that skilled labor is professionals who have a specific mastery within specialized areas in the construction industry, which has a

positive, if not modest, influence on local job progression in non-tradable services.

Unfortunately, the construction industry has fallen into a perhaps unanticipated pitfall of a shortage of skilled professional workers on a global scale that considerably impacts the quality of work, productivity, and scheduling (Aiyetan & Dillip, 2018). Skilled labor shortage such as electricians, plumbers, and carpenters in the construction industry has many big companies turning to preconstruction mitigation options to reduce the burden and shortfalls of not meeting scheduled deadlines (Cooper, 2018). With the global shortage of skilled labor, the construction industry staffing managers are faced with major challenges on how to make the industry a marketable, desirable workplace that attracts skilled labor for the future.

Some of the reasons the construction skilled labor shortage has become so severe perhaps could be the lack of awareness and long-term strategy to recruit young adults. The future, nevertheless, seems positive, as workforce innovations and education about skilled labor are being addressed through schools and accredited apprenticeship programs that educate train, and have developmental apprenticeship programs (Galeno, 2017). The abundance of work, managed with shortage-trained staff, has ostensibly required new approaches in education to confront the challenge (Ragogna, 2018).

The construction industry has been facing traumatic labor shortages over the past decade; consequently, the industry can resolve the labor shortage through the implementation of increased emphasis on training advances in automation (Melenbrink et al., 2020). Burkett (2019) asserted that formulating and implementing a well-developed strategy can offer the foundation for both recruiting and retention, even in tight markets.

In doing so, companies must protect personnel from static recruiting methods and create an environment where managers feel appreciated and involved. Ogundari and Awokuse (2018) emphasized that human capital has become essential to economic progress and development, and further expounded on the critical role of skilled labor, as a source of competitive advantage.

The skilled labor shortage has affected countries globally in several ways: a lack of economic aptitude, paucity of training, a dearth of educational facilities, and excessive governmental regulations may be constraining factors (Ayentimi et al., 2018). For example, most informal vocational and training apprenticeship programs in Ghana are fostered through family and communities without the government's support, reflecting the dire need for a mainstream approach in implementing more significant resources for the training of skilled professionals for the construction industry (Badu et al., 2018). A thriving economy requires skills development, and vocational education arguably needs must be supported by national competitiveness (Chatterjia & Kiran 2017; Thompson et al., 2015). This literature clarifies the magnitude of the problems that the construction industry is faced with, which may continue for years to come if drastic strategies are not implemented.

Belle et al. (2017) emphasized that the training of skilled labor professionals and developing vocational and technological attributes are essential for many of the construction industry requirements, which are primarily acquired through formal education. The skilled labor shortage is shown to be rapidly increasing on the global front in many countries that are less economically developed (Gallardo-Gallardo et al., 2017).

The skilled labor shortage that currently affects countries globally, is boosting the prevalence of an intellectual drain syndrome in countries all over the globe (Brock and Blake, 2017). For example, countries such as Canada have made tremendous changes to their labor programs to mitigate skilled labor shortages by expanding opportunities to transition temporary work permits for immigrants, to permanent immigrants (Field, 2017).

Arguably, construction workers of the future must be fully involved in acquiring and learning new job skills, understand career paths, and foresee the future influence on the industry as current professionals in the construction industry are aging (Brown, 2019). The shortage of skilled labor nevertheless within the construction industry creates opportunities for the innovative and resourceful. Despite the skilled labor shortage in the U.S. construction industry, the future appears bright, as the industry continues to see growth and is very competitive, with the market reducing underwriting terms and conditions to procure and preserve knowledgeable and skilled contractors (Speed, 2017). Even so, the long-festering shortage of skilled trade labor remains and continues to plague contractors across the U.S. construction industry (Parson, 2017).

Palmer (2017) noted that one of the industry's most significant objectives is the lack of training for skilled laborers as employers refuse to pay for training with the fear that the employees would leave companies for better-paying jobs after getting certified. Ginsberg (2019) noted that the skilled labor gap that the construction industry currently faces could leave a projected 2.4 million positions vacant between 2018 and 2028, with a possible economic impact of \$2.5 trillion. While there is a global skill labor shortage,

there is also a global COVID-19 pandemic, which has enhanced the skilled labor shortage. The COVID-19 pandemic crisis may have created some optimism nonetheless, in terms of the skilled labor shortage as many jobs have become obsolete; thus, creating an environment where new candidates must be trained to fill various jobs within the construction industry (Diesing, 2020).

The construction industry was in great economic growth, which was afflicted with skilled labor shortage before COVID-19; now, however, with both a labor shortage crisis and a global pandemic, the construction industry is at peril in a forward momentum progression (Briglia & McLaughlin, 2020). Kaye (2020) mentioned that with the COVID-19 pandemic and the skilled labor shortage affecting the economy, there should be parallel initiatives for both crises to mitigate future outcomes of the construction industry. With the skilled labor shortage and COVID-19 pandemic, the way forward for the American construction industry is to confront both crises through expansion and awareness and financial access to education and training (Ceresnie, 2020). However, the global pandemic and the skilled labor shortage may see better days ahead as the current leadership is focusing on implementing strategies such as funding for vaccines and infrastructure.

Construction Industry Sustainability

Construction sustainability is based on creating a healthy, eco-friendly environment that is economically viable in presenting the core social functions needed to enhance labor shortage and new construction within communities (Almahmoud & Dolo, 2020). Kusi-Sarpong (2019) defined *construction sustainability* as innovations in which

new or renewed inventions, services, or progress enhance economic and social performance while reducing environmental burdens. In many cases, new construction development needs to address further the long-term engagement on how the community evolves. For instance, some significant hurdles for implementing social responsibility in larger construction projects in Saudi Arabia have been ranked as second highest when dealing with lacking knowledge and awareness about social responsibility (Alotaibi et al.,2019). Fantani et al. (2019) emphasized that neighborhoods in Saudi Arabian cities need to address and consider the social, and environmental aspects of a community's social sustainability. Boyle et al. (2019) encouraged neighborhood sustainability measurement tools to prevail over environmental bias and the often denial of social-economic consideration.

Silvius and Schipper (2020) emphasized that there may be many circumstances that inspire the actual behavior of project managers addressing sustainability, and ultimately the project viability, which in the end, is likely to evolve based on the project management behavior. Addressing sustainability in the construction industry has become a prevalent issue as various studies and publications are now paying meticulous attention to project management and its relational impact on sustainability (Sabini et al., 2019). Alvarez-Dionisi et al. (2016) further stated that project management sustainability is recognized as one of the most significant global developments in current times.

Following the substantial pathway that project management plays in sustainability, Marnewick (2017) asserted that to determine the influence factor of sustainability, project management must consider the type of project and the impact it

presents. Recently and consequently, Bentehar and Ika (2019) contended that project managers are equipped with several roles; as a result, the individual often becomes the visioner of the project with the prospect to influence the project's sustainability. In addition, Bentehar further noted that sustainable project management does not change the manager's role, although it possibly offers a viewpoint that the project manager can decide to consider, as is the case with intrinsically inspired project staffing managers.

As inferred by Zuofa and Ochieng (2016), construction sustainability and a labor shortage are well recognized, and construction projects and related construction pursuits continue to impact the construction industry primarily on a global scale. Subsequently, with the rising commitment to urbanization and the increase in the rate of infrastructure advancement in most developing countries, it frequently is necessary to establish sustainability in construction standards and methods. Huemann and Silvius (2017) also further in this discourse, indicated that projects should be used as a vehicle for change that plays a crucial role in the sustainable development of organization and society that integrates broader societal objectives in sustainability development and projects process as a final goal. Kivila et al. (2017) proposed, that more emphasis should be placed on sustainability and project management concerning the delivery of the project.

Aarsett et al. (2017) suggested the need for a holistic approach that integrates ecological, economic, and social elements when making rulings in organizations and society as it conveys to project management the importance of business sustainability. As suggested by Matti et al. (2017), project managers are faced with an ever-increasing set of budget restrictions, and thus the design, evaluation, and choice of such a high-cost

project have become exceptionally critical in unstable economic conditions. In the discussion on budgetary constraints, Vuorinen and Martinsuo (2018) elucidated those decisions made by project staffing managers have a significant impact on the strategic value delivered by effective programs in the construction industry. The intricate role that projects staffing, and project staffing managers have thus, perhaps relates to the overall success of the organization and its sustainability, which are also directly correlated with the community they operate within.

Construction Industry Productivity

Construction industry productivity, as elucidated by Ozturk et al. (2019) was that from multiple studies reviewed, several indicated that construction productivity is strongly associated with economic growth and productivity. The constant demand for products and productivity could further add to the skilled labor shortage. In this context, Durdyev et al. (2018); Ma et al. (2017) noted that productivity is characterized as the sector's capability to produce output by utilizing inputs, such as money, men, material machinery, or quantification of the ratio between input and outputs, in addition, it is how efficiently resources are applied to attain project objectives. The effective way to explain productivity is perhaps by contrasting skills and mass production (Ahmed et al., 2020).

A close correlation between relationship and action is essential for construction companies striving to achieve progressive productivity while navigating around skilled labor shortage (Al-kwafi et al., 2020; Lee & Suwimol, 2018; Ng & Tung, 2018). The overall improvement of total factor productivity in the construction industry may involve identifying which productivity components require future improvement (Azman et al.

2019). For example, the improvement of time management at all project stages usually enhanced productivity, but an essential factor may be the company's attitude or psyche (Parson, 2017).

Baroniene and Zirgūtis (2017) noted that labor productivity is one of the essential synthetic indicators of the enterprise economic activity efficiency, reflecting the effectiveness or the fruitfulness of labor expected production. Construction staffing managers who understand that labor productivity is essential may further implement strategies that are progressive for the growth and sustainability of skilled labor. From research and experience, Chaturvedi et al. (2018) asserted that the construction industry's productivity is significant to the economic growth of a nation. The productivity of construction companies is vital to the success of local companies and affects wider margins. Ahmad et al. (2020) emphasized that construction is one of the most significant entities that drive the global economy; yet, it has failed to receive the needed notice from the policymakers and investors.

Hasan et al. (2018) found that there is a wide-ranging of indicators affecting productivity that can be designated under the socioeconomic conditions presented in emerging and advanced countries. There may be value in the findings, Shang et al., (2020), suggested, that one approach to combating labor productivity in an industry that is grappling with the skilled labor shortage is to look at different methods such as multi-skill labor utilization. A new approach to achieving productivity may lie in introducing a revolutionary technique to the construction industry by off-site manufacturing.

Despite the stagnant skilled labor shortage, Zevin (2019) suggested that development in measuring construction productivity in the U.S. construction industry shows that many construction companies have shown progression in overall productivity over the past five years. Although, on the other hand, Moohialdin et al. (2019) stated that the construction industry-unique characteristics, such as its vigorous weather conditions, make setting standards for worker productivity very meticulous. On another note, however, Gurmu (2020) asserted that suitable construction materials management practices could improve productivity in construction projects. Nonetheless, employee productivity is vital for any project or organization (Hecht, 2020).

Diversity and Inclusion Within the Construction Industry

Diversity is usually considered the enactment of organizational policies, methods, processes, and ways of working in favor of diversity, the impartiality of human resources and policies, equal treatment, or organizational justice. Diversity may be considered the mindset for self and others involving diverse people and behaviors of participants in the organization (Cachat et al., 2019). The diversity gap may be one of the contributing factors that is adding to the skilled labor shortage within the construction industry. Booker and Dutkiewicz (2018) indicated that diversity comprises several elements, including age, race, gender, sexual orientation, socioeconomic status, geographic location, and other elements. Booker and Dutkiewicz also noted that organizations should take more interest in inherent individual and institutional definitions of diversity to build and maintain an equitable and inclusive culture. Juett (2018) emphasized that *inclusion*

fosters a relationship with individuals of differing races, religions, gender, and socioeconomic status.

Baker and French (2018) suggested that inclusion is not a growing practice in many organizations as women are underrepresented in the Australian construction industry; therefore, to achieve sustainable change in the numbers of women in the project management sector, male-dominated industries such as the construction industry are inspired to think strategically about how to overcome the access and opportunity that negatively affect female occupational advancement, which could significantly reduce skilled labor shortage, by including a broader demographic of talents into the construction industry. Campbell (2019) claimed that diversity and inclusion may affect a broader aspect than the U.S. construction industry, as 80% of companies have difficulty filling hourly skilled positions in the construction industry. Campbell further suggested that diversity and inclusion are profoundly significant because inclusive and diverse organizations are more likely to be prosperous. According to the U.S. Bureau of Labor and Statistics 2019, women represented 47% of the U.S. workforce but only 9% of the construction industry in 2019, African Americans comprised 12% of the overall workforce, but a mere 6% of the construction workers. Introducing diversity into the construction industry may further enhance advancement as a variety of individuals may find the industry to be a positive work environment that encourages individual growth.

Todd (2020) asserted that for firms and vendors to be faithful allies who support diversity, thoughtful approaches to accompany actionable steps are needed. Todd further noted that to see a culture change in the construction industry, companies must be

accountable for diversity, hiring employees, leaders, subcontractors, and vendors. Todd also stated that top companies create the narrative and trend that others follow, and construction industry leaders must continue to talk about the importance of diversity and inclusion. Dorothy and Slattery (2017) emphasized that there are many stereotypes associated with the construction industry, primarily due to the dominance of men in the workforce and traditionally women only having roles as secretaries or receptionists. Dorothy and Slattery, nonetheless, predicted that change is coming as construction companies are becoming more diverse. Anderson et al. (2018) stated that organizations should make every effort for a work atmosphere suited for both women and men, while also indicating that disparities, either biological or socialized, amongst the sexes are unavoidable. Recognizing the diversity gap may further explain the overall complexities of the skilled labor shortage, which may also serve as an important part of addressing the problem within the construction industry.

Dorbusch (2017) contended that leaders in the construction industry, scholars, and experts might use figurative systems to create and execute effective diversity programs that attend to financial and social imperatives. George and Loosemore (2018) asserted that it is commonly recognized in the construction narrative that the industry is highly masculinized. Phua (2017) emphasized that the construction industry is of high-risk inclination of professionals and striving to reduce the risk correlated with the construction industry could address gender equity.

Choe and Leite (2017) proclaimed that some roles in the construction industry are perceived as riskier than others; this does not translate into how people in those roles see

masculinity being acted out in their work environments. Judd and Tam (2017) stated that diversity in the university classroom is vital to the continued success of the Australian construction industry and economy and the new digital capabilities being taught. Garcia (2018) suggested that many financial institutions are assisting construction companies with attaining diversity and inclusion by enhancing funding for vocational training on inclusion. Therefore, project staffing managers that implement innovation and diversity as part of their approach to tackling the skilled labor shortage may find solace in the fact that there's a demand for diversity and inclusion within the construction industry.

Innovations Within the Construction Industry

Varadarajan (2018, p. 17) defined innovation as an organization's enactment of invention, method, practices, or modification of an existing entity that significantly reduces the firm's activities in the natural environment. Pot (2018) asserted that innovation is the course of innovating or improving on an idea. Workplace innovation is understood as the creative process of learning from various knowledge sources and bridges the strategic knowledge of leadership and practices awareness of professionals and workers. Implementing innovation could empower construction companies to depend less on skilled labor. Lund and Karlsen (2020) suggested that the construction industry continues to evolve as technology changes; organizations must innovate and continue to combat skilled labor shortages. Galeno (2017) noted that with continuous changes happening in the construction industry comes new requirements in the way industry leaders approach constructional objectives.

Gomes et al. (2018) emphasized that innovation has become more prevalent over the past 15 years as competition rises within the construction industry. Lindblad and Guerrero (2020) stated that in the perspective of the construction industry, organizations are frequently recognized to play a vital part in establishing the right conditions for innovations, and when equated to other industries, innovation is frequently described as a solution to foster growth in the industry. Hall et al. (2019) emphasized that in many cases, it is incumbent upon organizations within the construction industry to display innovations to maximize current and future opportunities, which may assist in the reduction of skilled labor. Fagerberg et al. (2018) asserted that innovation is recognized as a requirement for social and environmental issues, as innovation is paramount to organizational progress. Innovation is essential within the construction industry due to the constant demand for new technology that endeavors to ensure the consumer desires are fulfilled.

Kanashiro and Rivera (2019) stressed that innovation plays a critical role in offering sustainable commodities and services through technological advancement and innovation. Taghikhah et al. (2019) observed that participating in construction innovation and environmental sustainability contributes to economic growth. Meng and Brown (2018) emphasized that organizations must implement sustainable innovation since the correlations between the benefits and the construction industry are profoundly significant. Singh and Gaur (2018) asserted that innovation within the construction industry is a vital component that must be implemented to ensure economic growth. Ozorhon and Oral (2017) stressed that a positive incentive for sustainability innovation is crucial in business

economics as leadership has a vital role in improving the performance of construction companies by increasing investments and innovation.

Dulaimi (2021) concluded that innovation is a phenomenon that has been around since the inception of humanity, which incorporates the human tendency to think of new and creative ways in implementing changes that enhance constant advancement. Dulaimi also stated that construction companies perform moderately and perhaps more robustly in an organizational environment that is conducive to innovation. Villaluz and Hechanaova (2019) emphasized that leadership encouragement for innovation within the enterprise is among the key factors that enable creativity to flourish, and the organization benefits in terms of economics and market growth. Jelodar et al. (2018) found that in the construction industry leadership is vigorously striving to incorporate and implement technology and innovations to comply with the stringent demand on a global scale. Zhang et al. (2018) argued that innovation and leadership in the construction industry are manifested in the individual understanding of making and harnessing the construction industry's progression. Innovation additionally plays an intricate role in the construction industry due to the constant desires of consumers who have modern and futuristic ambitions, which further burdens construction staffing managers as they strive to fill the labor gap.

Transition

In Section 1, of this manuscript, the details provided are on the background of the problem, aims, and the objective of the research study, with rationale and the constraints for construction business managers to implement guidelines and strategies to combat the

skilled labor shortage and enable business productivity and profitability. Section 1 also includes the problem statement, the purpose statement, the nature of the study, the research question, and the interview questions. In this section, the presented are the conceptual framework, the operational definition, the assumptions, the limitations, the delimitations, the significance of the study, and the review of the professional and academic literature. Section 2 includes a restatement of the purpose statement, supplemented with the following: the role of the researcher, details on the participants, the rationale and justification of the research method, design, the population and sampling procedure, measures to ensure ethical research, the data collection instruments, the data collection technique, the data organization techniques, the data analysis, the data reliability and validity, and the transition summary.

Section 2: The Project

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies that construction project staffing managers use to address skilled labor shortages and to achieve productivity and profitability. The targeted population consisted of six construction project staffing managers and contractors from six distinct organizations within the Southeast region of the United States who have experienced and overcome the challenges of the skilled construction labor shortage. This study may reveal labor and business strategies that construction company leaders can use to enhance and positively promote the development of individuals within society through gainful employment. The findings and recommendations from this study, if applied or adopted, may contribute to positive social change through the optimization of skilled labor and job creation. Such job creation may improve the social conditions and quality of life of professional and blue-collar workers and the communities associated with the U.S. construction industry.

Role of the Researcher

The principal responsibilities of the researcher of a qualitative study are data gathering in addition to analyzing documents and observing participants as there are a variety of characteristics that could hinder the process (Janssens et al., 2019; Creswell 2013). I conducted a qualitative study using a multiple-case study design. I conducted semi-structured interviews, using video, telephone, and email modalities and options to arrange and/or administer the interviews and follow-up activities. Supplementary data were collected from the financial statements of participants' companies for triangulation.

As emphasized by Yin (2018), the triangulation of data is important in case studies. Also, to conduct quality research, ethical standards must be kept and maintained by the researcher. A personal commitment and professional role were therefore to ensure the highest ethical standards in undertaking this qualitative study.

Researchers must follow ethical practices that reflect trustworthiness when retrieving data from participants. The researcher plays a key role in a qualitative research study so much that Yin (2018) referred to the qualitative researcher as the primary data collection instrument and the interpreter of findings. The need for integrity and trustworthiness in research requires that the researcher set a strong ethical standard that translates into clear rules to guide the various stages of the research (Marshall & Rossman, 2016). As noted by Mateja (2018), trust is often treated as a binary component where research participants could find each other reliable or objectionable as trust is multidimensional.

Confidence is something that must be developed by both the researcher and participants to ensure a cohesive and transparent process, which requires taking some risk to mutually trust one another. As a mitigating factor, qualitative researchers should be clear in describing their methods (Pratt et al., 2020). Yoon (2017) noted that trust is often correlated with positive outcomes. The honesty of the researcher is paramount when part taking in qualitative research, particularly in multiple case studies. Zachariassen et al. (2019) stated that in multiple cases, implementing bracketing enables the research process to be more adaptable and conducive for participants and instills trust.

Numerous researchers have advocated the use of bracketing, to conduct an unbiased interview. Bracketing refers to the researcher's creative ability to set aside personal biases and assumptions. Pentland and Calantone (2017) reasoned that bracketing is the widespread digitization in creating new sources of data that record a sequence of actions and events. Bracketing can enable the researcher to visualize, analyze, and assess patterns of actions as a unit of analysis (CITE). Therefore, bracketing as a strategy for clarifying predisposed biases toward the subject should be implemented throughout the study (Ponterotto & Reynolds, 2017).

I derived the interviews questions for this study from the research question. The questions are aligned to the specific business problem and the purpose of the study to avoid personal biases. Furthermore, I used an interview protocol to circumventing biases that may have been detrimental in conducting the interviews. The use of an interview process and protocols is consistent with the guidelines and ethics outlined in the *Belmont Report*, which was an output of the National Research Act of 1974. The report sets forth objectives and methods for ensuring that ethical principles are upheld when research encompasses human subjects.

My role as the researcher in undertaking this study was to adhere to ethical protocols that are consistent with the recommendations in the *Belmont Report*. The *Belmont Report* informs the expected actions of each member of the study. The *Belmont Report* acts as an ethical roadmap and guide in the conduct of s research study, especially when it involves different types of decision-making for researchers, review committees, and prospective subjects and participants (Romm, 2020; Walter et al., 2018). I used a

semi structured interview protocol to provide uniform structure for participants in this study.

Participants

In this qualitative case study, I sought to better comprehend the business strategies that project, and business managers used to recruit and retain skilled labor in the U.S. construction industry. The research strategy consisted of recruiting a goal-directed sample of six project staffing managers from construction companies throughout the Southeast United States, with the interviews progressing until the achievement of data saturation. Achieving data saturation embodied the point when the six to eight participants gave similar responses. Braun and Clark (2021) defined data saturation as information redundancy, which occurs when they are no new themes or codes are revealed by participants.

I conducted semi structured interviews with participants until I had attained data saturation. The interviewer may require several follow-up questions and interviews to thoroughly elicit deep insights and achieve saturation. Nascimento et al. (2018) noted that saturation occurs when new elements cease to emerge from collected data. Weller et al. (2018) emphasized that the hypothesis of saturation is the point where the key ideas and variations relevant to the design of a theory have been identified.

The selection and suitability criteria for the participants were that all participants were required to be well-informed project staffing managers who had more than two years of experience within the U.S. construction industry, successfully dealing with the skilled labor shortage. To obtain and gain access to the participants, I sent personalized

emails (see Appendix A) to the project staffing managers of the various construction companies selected for this research, explaining, and describing the purpose of the study. I followed through with phone calls to reiterate and answer any questions that the participants may have about the study. The selection and eligibility of all participants were thoroughly vetted by cross-referencing work history and experiences to ensure that the researcher's aim is directly aligned with the overarching research question of the study. To protect and ensure that each participant's privacy was profoundly secure, I assigned an alias identifier that was distinctive to each participant in the study. Surmiak (2018) emphasized that the researcher's role is to identify and protect participants primarily through anonymization to ensure confidentiality. Taking the approach of ensuring participant confidentiality was profoundly adhered to in this study.

Research Method and Design

The research method can be qualitative, quantitative, or mixed methods. The design is based on the actual structure or framework that indicates the time frame in which data were collected or how and when data was analyzed using qualitative methods (Yin, 2018). For this research study, I selected a qualitative method and a case study design.

Research Method

The qualitative method was used in this study to gain insight into the strategies of successful construction industry project staffing managers. Qualitative research is suitable to understand firsthand experiences and is usually favored when the aim is in retrieving nonnumerical data (Yin, 2018). The deciding factor for choosing a research

method and design is to ensure that the most ideal suitable approach is used to elicit insights, specific to the overarching research question. Qualitative methods serve well in collecting data in an opportunistic or purposive fashion and are also considered the epitome of exploratory analysis (Gerring, 2017). The qualitative method exemplifies a form of data collection and analysis with a focus on understanding and an emphasis on meaning. The method also is frequently used to explore the “how” and “why” of procedures and human performance, and what governs this behavior (Edmond & Kennedy, 2013).

The quantitative method is based on statistical data. Rutberg and Bouikidis (2018) stated that in quantitative studies, the researcher may use standardized questionnaires or trials to collect numeric data. Vivod et al. (2018) stated that the quantitative research method is to a great extent about the invocation of statistical techniques, to examine the correlation between variables, test hypotheses, and other similar purposes. Taylor and Francis (2020) asserted that the quantitative research method may entail the use of inferential statistics in analyzing numerical data and helps to conclude data according to analysis. The quantitative research method was not chosen for this research, because numerical data may not always be useful in understanding human dynamics, as specifically, understanding and exploring of this phenomenon requires the insight from those closely associated with it, which may not be possible with quantitative data. The mixed methodology is a combination of two methods.

Hitchcock et al. (2020) stated that regardless of the rationale for mixing methods, researchers are often conflicted in making effective sampling decisions and subsequently

making appropriate interpretations. Mckim (2017) emphasized that mixed-method research necessitates additional time due to the need for gathering and analyzing the various types of data. Ivankova and Plano (2018) contended that there are growing complexities associated with implementing mixed-method research. The mixed methodology was not selected for this study because of time constraints and the possible complexities that are frequent when using multiple methods.

Research Design

For this qualitative study, I used a multiple case study design. A multiple case study is considered suitable when the researcher has a greater reach in gathering and analyzing primary data and information from various other secondary data sources. Gustafsson (2017) lectured that studying multiple cases helps understand the similarities and differences between different entities and is useful when that is the objective of the research. Treiblmaier (2020) suggested that case studies are suitable approaches to thoroughly transfer industry experiences into research agendas, which usually benefits both the development and testing of design science research as well. The case study design is used in a variety of cases to explore present and real-life dilemmas that either have been solved or need to be solved and may provide a means to a detailed understanding of the phenomenon under study (Jabbarova, 2020). A case study design is more feasible in serving the researcher who seeks to understand the why and how of the overarching research question (Ahmmed et al., 2020). As noted by Fernández-Ahumada et al. (2020), a case study design using pertinent data analysis is often conducive to adaptation by the researcher who must ensure rigor and high-quality standards.

Other designs are not chosen because this case study aimed to explore multiple construction company staffing challenges. Phenomenological design is sought to understand lived experiences related to a phenomenon, however, not relevant where the aim is in-depth business management information (Yildiz, 2020). Towers et al., (2020) noted that phenomenology is a design, used in research to focus on exploring a problem from the application and grounding of human behavioral understandings. Medina and Lopez (2020) emphasized that ethnography as a research design is used to fully understand as much as possible about an entire society. I did not use the ethnography design because this study was not about learning and understanding human behavior. A quasi-experimental design is about experimental research. As noted by Rogers & Revesz (2020), experimental and quasi-experimental research design is usually used to evaluate whether there is an underlying relationship between independent and dependent variables. The quasi-experimental designs are like randomized regulated trials in several respects, but there are many trials in designing and performing a quasi-experiment, notably when internal validity threats may be introduced from the dearth of randomization (Maciejewski, 2020). The quasi-experimental design was not used as the research was not structured based on experimental designs, instead of gathering data from various case studies.

Population and Sampling

From the population of construction staffing managers employed within the Southeast U.S. construction industry, a purposive sample of six was drawn. Participants with experience in the construction industry served to facilitate the uncovering and

exploration of pertinent information to holistically understand the phenomenon of the study that is substantial to the overarching research question and the phenomenon under study. Guest et al. (2020) noted that over the past five decades across various academic disciplines the typical number of participants needed to attain data saturation varied and was five to nine. Saunders et al. (2019), there is no set number of interviews to determine data saturation as some topics are more expounded than others, thus causing data saturation to vary accordingly.

Rahi (2017) proposed that a population can be characterized as all people or objects that one desires to understand, while sampling is the procedure of choosing specific participants with the desired level of knowledge, from the population intended to be studied. Cole (2021) stated that it is important to sample individuals who are in key positions and who may exhibit certain knowledge that is relevant to the study. Purposeful sampling is the recruitment of a specific population in terms of age, gender, academic rank, and work experience (Taghadsi et al., 2021). A purposeful sampling may be time-consuming when striving to select between the various participants for the interviews from the targeted population (Lu et al., 2018). Interviewing the six to eight participants in a semi-structured setting can help the researcher to better grasp the stage when data saturation is reached. Data saturation is usually reached when the researcher has interviewed numerous participants, up to a point and stage, beyond which there is typically repetitive information, and no new detail emerging, considered the cue that saturation of data is achieved and attained. Faulker and Trotter (2017) noted that saturation is when the researcher can convincingly state that further data gathered would

produce a similar result, perhaps reflecting the accomplishment of this goal and the futility of continuing the interview with a participant(s).

The criteria for selecting the interview, participants were centered on well-informed staffing managers within the U.S. construction industry. Selecting experienced participants was essential to attaining valid and credible data for this study. In selecting the participants for the interviews, stringent measures, such as pseudonyms P1, P2, etc., were taken to ensure that each participant's privacy was protected. Surmiak (2018) asserted that data protection legislation obligates the researcher to acquire permission for the handling of an individual's data. With the COVID-19 pandemic, strict interview restrictions were implemented to protect participants and the researcher. To undertake this study, social distancing norms, mask-wearing, and zoom interview meetings were implemented to ensure that the data collection process is safe. Further communications with the interviewees were followed with email and phone calls to better adhere to the mandated social distance precautions.

Ethical Research

In qualitative research, it is essential to conduct an ethical research process that is based on an interview process, which is based on protecting the confidentiality of the information and the participant's privacy. Varkey (2021) asserted that ethics is the application of four main principles, which are justice, autonomy, beneficence, and nonmaleficence. Gomes and Duarte (2020) noted that the researcher must abide by ethical principles that guarantee the conditions of the research and protects the interest of the research and participants in terms of the security of all individuals involved along

with their privacy and confidentiality. Shaw et al. (2020) stated that ethics in research and code of professional ethics of behavior when undertaking studies with human participants, particularly around the sensitive subject matter. Schaefer and Alvesson (2020) indicated that a conscientious researcher needs to demonstrate trustworthiness, vital judgment, and a practical stance which are as essential as formal procedures to enhance and secure the credibility of the research. As emphasized in the *Belmont Report*, it is important to appreciate autonomy and give authority to autonomous persons, considered opinions and options while refraining from obstructing their actions unless they are damaging to others. The *Belmont Report* also contains principles such as beneficence, which may regularly affect individual investigators and society at large. Baker and Roodbol (2021) noted that the main concern with the beneficence principle is to minimize the risks and optimize benefits.

Millum and Bromwich (2021) noted that it is paramount that the researcher discloses all pertinent valid data to participants to ensure that both interviewee and interviewer are mutually understood. For this study participants were emailed an informed consent form. In the document, the participants were given a copy of the topic and information regarding the purpose of the study and the research question, which offered participants a broader understanding of the study and possibly enabled better decision-making on the part of the participant. As asserted by Yin (2018), to ensure that ethical protocols are adhered to, when research involves human subjects, the researcher should seek informed consent from the participant. Participants were notified that an informed consent form does not represent a binding contract for the duration of the

research and that participants could voluntarily withdraw at any given time without any negative consequence. Participants were able to discontinue the process at any time without facing ascribing and seeking reasons for doing so (Ross, 2019).

To further extend the ethics guidelines and protect the privacy and confidentiality of the participants, the interview transcripts were saved and secured in a safe computer data file for five years. To guarantee the integrity of the research, researchers must adhere to ethical guidelines. Gordon (2020) asserted that the institutional review board is unambiguous about the ethical concerns to safeguard the interest of individuals part taking in the research. I obtained approval from Walden University's Institutional Review Board before collecting data (approval no. 03-01-1003500). I also completed the CITI Program's training on working with human subjects (see Appendix B). To further ensure confidentiality, I have not included any identifiable information, such as names of organizations or individuals, in the capstone document.

Data Collection Instruments

The data that were collected from the participants and derived from semi structured interviews as the main source of data for the research. The semi structured interview process was chosen because the method is well known to be flexible and versatile facet of qualitative research (Kallio et al., 2016). Undertaking a semi structured interview is used as the method to enable the researcher to have a conversation with the participants, and having such flexibility helps to ensure that the interview protocols can be implemented with follow-up questions (Dejonkheere & Vaughn, 2019). By implementing semi-structured interviews and protocols the interviewee may have a

broader scope to which data can be fluid as it relates to the interview questions (Abd et al., 2020). A semi-structured interview is often more accommodating because it is amenable to a more flexible and extensive follow-up process and is conducive to engaging participants with additional open-ended questions, when needed (Hariharan et al., 2020).

Due to the COVID-19 pandemic, the semi-structured interviews of participants were done using digital technological advancements, such as Zoom, Skype, voice recorders, email, and phone calls. Using the application of technology further ensured that the interviews were safely facilitated while adhering to interview protocol. COVID-19 has created an unusual complexity for qualitative researchers striving to part take in semi-structured interviews (Lobe et al., 2020). The interview protocol guide that includes an alignment to the overarching research, in the form of interview questions was used to ensure and enhance the reliability and validity of the research and keep the participant's interview in a structured and organized manner. A well-organized interview can result in attaining data that is thorough and is the key component to gathering reliable quality information (Yeong et al., 2018). To ensure reliability and validity, I followed the interview protocol (see Appendix C).

To increase the reliability and accuracy of the study, the interview protocols were followed stringently, and each participant was given a copy of the transcript and findings to verify and validate the accuracy of the interviews. Such a process is known as member checking. Che Abdul Rahim et al. (2020) stated that member checking is performed, to ensure and provide a clear comprehensive guide for researchers who are exhibiting

thoroughness in the research undertaken. By ensuring that participants can verify statements and confirm the accuracy of data, which represents the safeguards of the authentication and the trustworthiness of the study. Johnson et al. (2020) stated that member checking is the process of presenting the interview data and findings to the participants to ensure the accuracy and trustworthiness of the research in addition to reinforcing collaborating relationships

Data Collection Technique

In a qualitative research study, there are numerous data collection instruments. The most important data collection instrument is the researcher, as noted by (Yin, 2018). To accomplish the objectives of qualitative research, researchers sometimes use semi-structured interviews to collect insightful data. Semi-structured interviews are accommodating and allow for follow-up open-ended questions. Mohajan (2018) explained that semi-structured interviews also and the ensuing data collected, often serve the quest for holistic analysis, as the interviewer can triangulate data from numerous sources, such as financial records, governmental statistics, and company documents, which could be examined alongside other data. The utilization of multiple primary and data sources improves the reliability and validity of the study. Yin (2018) stated that data triangulation reinforces the trustworthiness of the study. Ghinoi et al. (2021) asserted that the data triangulation method has arisen as a key tool that has given force to both qualitative and quantitative analysis in mapping out individual and organizational behavior, which overcomes the deficiency related to the limitation of using a singular data set, while potentially reducing the multiplicity of biases which may be present.

Using semi-structured interviews as a method for data collection has advantages and disadvantages. Some advantages are that semi-structured interviews are conducive for interviewers to follow up with open-end questions, and the use of digital technology such as Zoom, Skype, voice recordings, and other electronics to capture and secure the interview transcript safely. Fenech et al. (2019) stated that digital technology is transforming business processes and operational structures in the pursuit of competitive advantages that progressively recognize human capital, intellectual capital, and knowledge as essential components. With the use of technology, the interviewer can better adhere to guidelines set forth by interview protocols, thereby potentially increasing the credibility and validity of the study. Scheduling, timing, saving, and setting of boundaries for both interviewers and participants are more feasible for all parties. Semi-structured interviews also enable the advantage of articulating participants' non-verbal communication. Horgan and Judith (2019) defined nonverbal communication as a behavior of the body, voice, and face minus the linguistic content, in words. Miller et al. (2018) noted that semi-structured interviews are frequently synchronic, and the researcher benefits from such social cues as body language, and voice intonation, to solicit detailed views and inquire for a more in-depth understanding of the subject matter. Some disadvantages are costs that can incur due to traveling (e.g., gasoline, lodging, meals, wear and tear on vehicles, and other time-consuming measures and expenses such as computer technicalities).

Data Organization Technique

Procedures for data organization help to establish effective data storage and retrieval process for research. Yin (2018) stated that researchers can use various methods and strategies to organize, analyze, and facilitate the research process. Johnson et al. (2020) emphasized that researchers typically use multiple techniques, such as reflective journals, and diaries to document specific experiences from the participants. Reid et al. (2018) noted that the usage of diaries and reflective journals can be essential in directing any biases from the researcher while ensuring the objectivity of the study remains in focus. The rapid advancement of technological software has enabled researchers with a vast number of options and devices that can be utilized to store qualitative data, collected from participants, using the interview process.

The process through which data collection was recorded and monitored is by utilizing a database organizing system to store and compare each participant interview. The process consisted of a list of items, such as (a) a summary of the participant's answers; (b) the log of the gathered interview notes; (c) a copy of the participant's signed consent form; (d) copies of the participant interview transcripts; and (e) copies of any voice or video recordings. All copies are timed stamped and coded specifically to ensure authenticity and credibility. The files are labeled and saved to a flash drive, which is kept in a safe place for five years, from the completion date of this study. All files are backed up on a secondary platform, which is a password-protected folder to secure and prevent file misplacement; in addition to preventing file misplacement, confidentiality, and protection of participant information.

Data Analysis

Data triangulation as defined by Yin (2018) is the collection of several sources that can point to similarities and differences that may show the depth of the analysis and the acuity of the researcher, which may also aid the strengthening in the foundation of the validity in a case study. Chiavacci (2020, p.300) asserted that qualitative data analysis is the categorization and understanding of linguistics or visual information to produce assertions about implicit and explicit components and constructs of meaning-making in the information and what is represented in it. Yin (2018, p199) noted that analytic strategies must show that an exhaustive measure, such as data triangulation, investigator triangulation, theory triangulation, and methodological triangulation when used may cover all the key concepts of the research question and that the most significant aspect of the study is therefore addressed.

The first approach in this study, was for comprehensive triangulation, after all, primary data was collected, which helped ensure that exhaustive measures are placed to illustrate, that the collected primary and secondary data are used in ensuing a holistic exploration and analysis of the phenomenon. The second approach reflects that all plausible interpretations are addressed. The third approach was to address the most significant aspects of the case study. The fourth step was addressing any discourse of the study such as unnecessary detours to lessor matters that may redirect interest away from the key issue because of possibly contrary findings. The triangulation of data from various sources such as interviews and documentation may serve as a guide in supporting the strength of the study. Lerman and Smith (2021) noted that analyzing qualitative data

is a critical factor in ensuring the validation of transparency and trustworthiness in the data collection analysis process. The interview questions (see Appendix D) addressed the key component of the research question on searching business strategies used by managers within the construction industry, who constantly strive to address the skilled labor shortage. Qualitative interviews create an atmosphere, which enhances the interviewee's opportunities to explore specific issues through the petition of open-ended inquiries, which accentuates the significance of exploring the knowledge and perception of the interviewee for developing a better comprehension of social realism (Doringer 2021).

After the completion of the semi-structured interview, participants were given a transcript of the interview as a guide to ensure the truthfulness and validity of the data presented in the interview. Providing all participants with a copy of the transcript enabled the interviewees to verify the transcript, which possibly served to enhance the validity and reliability of the presented results. In qualitative interviews, member checking is the cross-checking of data, which entails numerous data sources to corroborate themes, which is normally done through the requesting of the participants in verifying the accuracy of the accounts to ensure and increase the reliability and validity of the collected data (Candela 2019, p. 619-621).

The interviews continued until there was no new information that was pertinent to the study, which represented the attainment of data saturation. When data saturation has been achieved the use of NVivo12 software was used in the analysis of the data process, to convey and evaluate the participants' data. NVivo was used because this software has

features, which present the researcher with the capacity to organize several inquiries to address the research intentions, which also simultaneously simplifies the removal of irrelevant data and quotations from the data, and helps quality themes to emerge, and findings, which illuminate the phenomenon studied (Ballentine et al., 2021, p. 5). In the process of data reduction, I ensured the removal of all unnecessary information pertinent to the study. Ensuring that clean qualitative data is presented and accessible, is important to demonstrate accuracy and validity in a study (Cook, 2021). Alphabetical assignments of codes were used to disguise and deidentify each participant and interviewee. Each participant in addition was assigned a number with a code, such as a participant P1, participant P2, and so forth. Such measures and the coding process throughout the study helped ensure the confidentiality of participants' research and rigor. The use of coding is an essential qualitative research technique favored by many (Parameswaran et al., 2020). Appendix E shows each code and the number of references to it in participant responses.

Reliability and Validity

Yin (2018) noted that reliability and validity are both essential aspects of qualitative research as reliability is the regularity and repeatability of generating a case study's finding, whereas validity is the precision with a case study's measure reveals the concept of being studied. Johnson & Corey (2020, p.4-5) stated that reliability describes the strength of the research, mainly in relation to the applicable methods selected, and the way those methods were utilized and applied in the study. Whilst validity is a measure representing the manner of determining the fidelity of the findings from the perspective of the researcher, and the participant respectively. Abd Gani et al. (2020) stated that

validity and reliability in qualitative data are significantly dependent on the researcher's outlook on the main personalities in the interview session. For the study, all interview protocols were followed, in which all participants were asked the same open-ended interview questions, to ensure consistency and dependability. In addition, the case study technique was adhered to by offering a review of the transcript of the interviews, as a member checking review opportunity, to all participants in the study.

Reliability

Reliability is essential in any study; however, reliability is more relevant to quantitative research due to the specification of repetition from assumption testing and results. Reliability is essential because the measuring instrument is the key component that ensures the outcome of the study is rigorous and strong. Maslakci and Surucu (2020) stated that reliability is a gauge of the firmness of measured values achieved in repetitive measurements under identical conditions using the same instruments. Nonetheless, in qualitative research reliability, arguably is perhaps not considered as stringent by some, even though the methodology and the method ought to be expounded with a significant abundance of data to permit other researchers to reproduce the study, such measures to ensure this process is known as dependability, an analog of reliability, albeit in a qualitative setting. Langtree et al. (2019); Mackieson et al. (2019), asserted that dependability relates to the concept of internal reliability which encourages consistency and reliability, or repetition and dependability can be accomplished by thoroughly clarifying the process of the study to facilitate future researchers to identical replication

of the study. The ideas of Langtree and Mackieson on dependability were fully adopted in this study.

To achieve a qualitative study that is trustworthy, it must be dependable and has credibility. Joseph (2020) noted that while performing research, it is imperative to consider the ethical concern as it relates to credibility and the researcher ought to abide by the recommendations of the research process. The objective of reliability is to certify and lessen the errors and prejudices in the study Yin (2018, p.46). To ensure that the process is reliable and credible all participants in the interview process were given copies of all documents, such as transcripts and audio recordings, which were member checking opportunities, specifically to validate the authenticity of the transcribed documents and correct or edit any inconsistencies.

Validity

Validity is defined as acquiring data that is applicable for the intended use of the measuring method, whilst validity refers to whether this is intended to be measured, and indeed achieves these goals, as is expected (Surucu & Maslakci 2020, p.2696). In qualitative research validity and credibility are often congruent as the two are synonymous with each other. Credibility is centered on confirmable, practical research instead of mandate or traditions (Cook et al. 2021). To ensure credibility, in this study, member checking is a process that was implemented, where all participants were given copies of transcripts to confirm that transcribe data is accurate. Credibility is based on the researcher's actions to ensure quality and rigorous study, and the measures and protocols that are adhered to, systematically and consistently.

Transferability is known as researchers depending on previous research data to serve in expounding on current research. Glenton et al. (2020) defined transferability as the degree to which the review question and the background of a study, and the data and analysis may apply to other contexts and similar settings. Confirmability is the researcher understanding that the information that is been presented, must be authenticated, or consistent with the views of the participants and not the thoughts and ideas of the researcher. Korstjens and Moser (2018) further stated that the data should be the source and not individual viewpoints or preferences when striving to ensure confirmability. To ensure confirmability, I made the decisions based on data and not individual perceptions. Data saturation is the process by which the researcher has interviewed numerous participants to the point where there are no new data emerges, and when redundancies are noticeable, reflects this. Clake and Virginia (2021) stated that the theory of data saturation is defined as information redundancy or the moment at which no new topics or codes arise from data during the interview process. The data in this study was assessed and confirmed through member checking and other measures described herein, while the features of NVivo12 software helped to ensure that the reliability followed the qualitative research expectations of rigor and high standards.

To ensure credibility, member checking was the process that I implemented, where all participants were given copies of the interview transcript and findings to confirm that transcribed data was accurate. Credibility is based on the researcher and the protocols that are adhered to. Transferability is known as researchers depending on previous research data to serve in expounding and analyzing current research. Glenton et

al. (2020) defined transferability as a review of the degree to which the framework of the review question and the background of studies supporting data to the review finding prior found studies of merit and quality. Confirmability is also reflective of the researcher's understanding that the information that is been presented must be the views of the participants and not the thoughts are ideas of the researcher. Consequently, implementing these strategies served as safeguards to ensure that the quality of this study was robust and fulfilled the reliability and validity expectations for quantitative research.

Transition and Summary

Section 1 is a presentation of the problem statement, the purpose statement, the nature of the study, the research question, and the interview questions. Section 1 also included the conceptual framework, the operational definition, the assumptions, the limitations, the limitations, the significance of the study, and the review of the professional and academic literature. In Section 2 the details presented include the purpose statement, the role of the researcher, the participants, the research method, the research design, the population, and the sampling procedure. Also in this section are the ethical research, the data collection instruments, the data collection technique, the data organization techniques, the data analysis, the data reliability and validity, and the transition summary. Section 3 comprises of opportunities for the findings and analysis of the study, in the form of thematic analysis. This section covers opportunities for future research, the possible application of the findings to professional practice, the implications for social change, the recommendations for actions, the recommendations for future research, personal reflections, and the conclusions of the study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The objective of this qualitative multiple case study was to explore successful strategies to preserve professional labor in the U.S. construction industry. I selected and interviewed six construction project staffing managers for this study. All six participants represented different construction firms within the Southeast U.S. construction industry. The overarching research question for this study was, what strategies do construction staffing managers use to address skilled labor shortages to achieve and sustain productivity and profitability? I used an interview protocol to facilitate the semi-structured interview process. The open-ended interview questions that I asked enabled participants to provide in-depth responses. Aleksandra (2022) asserted that the use of semi-structured interviews allows a researcher to probe organizational challenges and unregistered initiatives.

I uploaded data from the interviews into NVivo12 qualitative research software. Using the software, I analyzed the collected data for consistency and derived emergent common themes. The analysis resulted in nine themes and over 80 codes. The findings show strategies that construction staffing managers used to motivate sustained skilled labor within the construction industry. The conceptual framework for this study was Burns's (1978) transformational leadership theory. Frazier (2018) emphasized that the theory is based on integrity, charisma, intellectual stimulation, and people development, components that make employees feel appreciated with a sense of value. Amina and Singh (2017) also noted the transformational leadership approach creates an environment

for innovation and ensures a positive working environment. As such, it was an appropriate theory for understanding the study phenomenon.

Presentation of the Findings

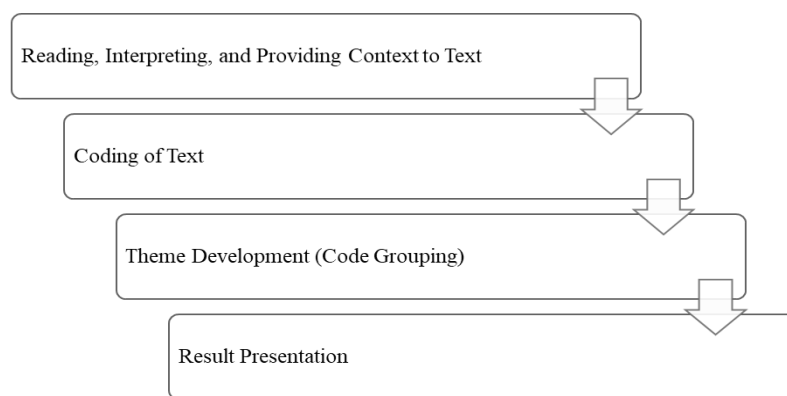
For this study, I used a qualitative methodology with a multiple case study design. The use of a case study design allows a researcher to understand the why and how of the overarching research question (Ahmmed et al., 2020). The overarching research question was, what strategies do construction staffing managers use to address skilled labor shortages to achieve and sustain productivity and profitability? In undertaking this research, my task was to obtain and interpret data in such a manner that would yield holistic information, consistent with the aim of a good qualitative research study. The data were collected by conducting semi-structured interviews with the six participants, who were experienced project staffing managers within the U.S. construction industry.

Following the semi-structured interviews, I transcribed the data. The analysis followed a four-phase process: (a) reading, interpreting, and providing context to the gathered data; (b) coding text; (c) grouping codes and developing themes; (d) presenting the results. The categories resulted in nine themes: (a) employee retention, (b) recruitment of skilled labor, (c) mitigation of against barriers hindering the success of recruitment and retention strategies, (d) the effectiveness of the strategy to address the skilled labor shortage, (e) strategies used to address the skilled labor, (f) impact of COVID on strategy, and (g) management of COVID. The qualitative analysis was conducted using the qualitative data analysis software application NVivo12 to facilitate interpreting and analyzing the data gathered from participants. A word cloud density

diagram was also generated to show the frequency of words in participant responses; this further validated the analysis process. The four phases of the analysis are indicated in Figure 1.

Figure 1

Diagram of Data Analysis Process

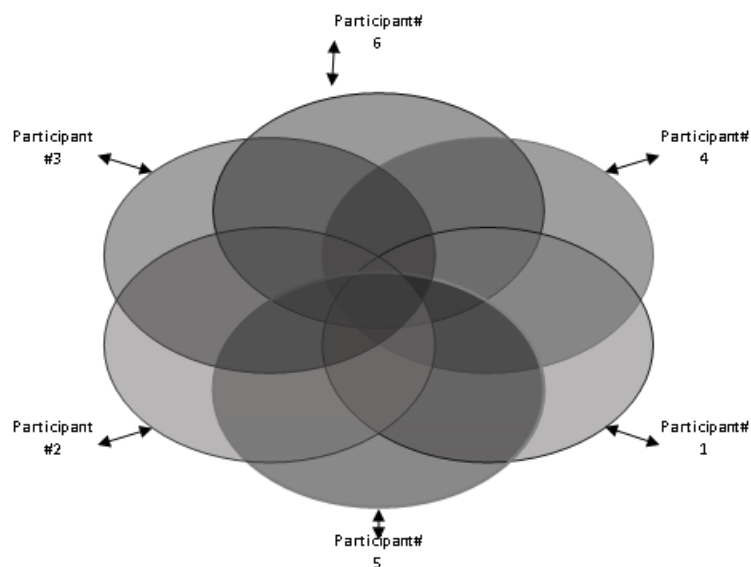


Phase 1: Reading, Interpretation, and Contextualization of Text

I read and reread the collected data several times during this phase to get a complete overview of what the data entailed. A word cloud diagram was generated to reflect participants' word frequency output in the data. This was done to get a quick overview of what the data contained before commencing the reading and coding of the data, which is a form of short evaluation and visualization. The alignment of the most common words in interview responses with the research keywords indicated that the collected data addressed the focus of the study; hence, the analysis could be done on the data. The word cloud diagram is shown in Figure 2.

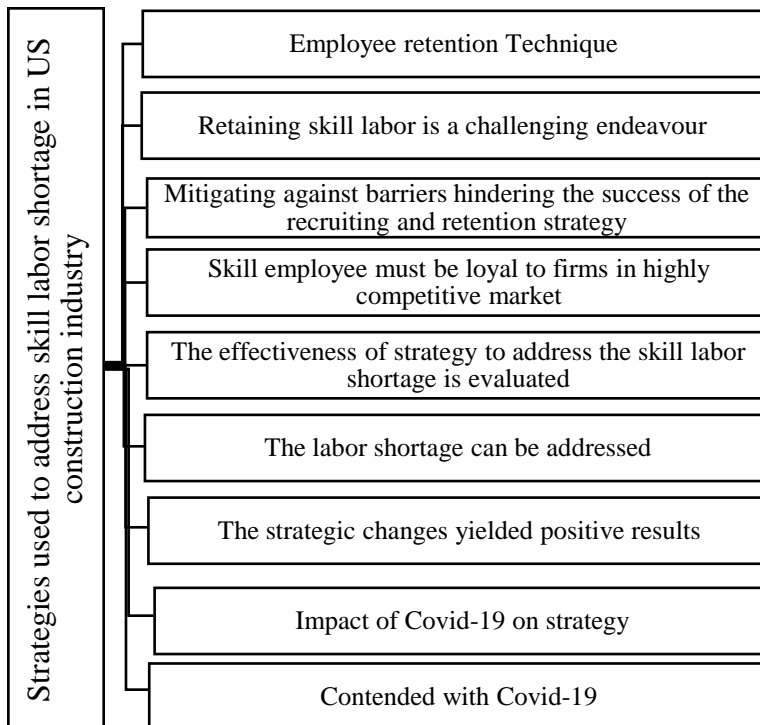
Figure 3

Coding by Document



Phase 3: Development of Themes

I grouped the established codes to form themes in Phase 3. The grouping was based on the relationship between the codes. Codes with identical properties were grouped and categorized as a single theme. The recognized and emergent themes indicated a range of collaboration with data that links ideas between data segments. Locke (2022) noted that coding involves the work of examining, contemplating, and organizing collected observations and analyzing their relationships to one another and to the research question(s). The thematic diagram representing the nine themes gathered from the analysis of the six participants' transcripts is shown in Figure 4.

Figure 4*Thematic Diagram***Phase 4: Presentation of Results**

The results of the analysis of all nine themes are discussed in this phase, which was to focus on ascertaining the strategies that construction staffing managers use to address the skilled labor shortages in the U.S. construction industry. The nine themes derived from commonalities or nodes that the six participants frequently implied or referred to during their semi-structured interviews. All participants were given pseudonyms such as P1, P2, P3, and so forth to protect their identity and disguise any company affiliations.

Theme 1: Employee Retention Techniques

For this theme, employee retention techniques, P1, P2, P3, P4, and P5 noted that the “first line of action in retaining skilled labor was to ensure that they were paying adequate salary. The participant referred to as P3 emphasized that he and his company have developed multiple strategies for employee retention. P3 expressed that understanding the importance of employee retention is necessary for attaining profitability for the business. Burkett (2019) asserted that formulating and implementing a well-developed strategy can offer the foundation for both recruiting and retention, even in tight markets. P3 indicated:

Experience affects project completion and experience cannot be attained without employee retention. Retention helps to ensure that projects can be completed on time and within budget as experience is retained. Experience can be measured for both the current employer and outside employment and is the best metric that contributes to project completion both on time and within budget.

One of the top strategies used for employee retention is increased or appropriate remuneration for the employees. P2 explained that they ensure they offered the employees appropriate pay and increase their salaries if needed. P2 stated, “My strategy to ensure that I keep my skilled labor is to first ensure that I am paying them the right salary or wage and keeping up with the pay scale of the industrial norm”.

Participant P1 further explained that the management must take their time to understand the factors that motivate individual employees and ensure that the identified are included in the day-to-day work in the firm. P1 further noted, that other strategies

used in retaining skilled labor were enacted, to ensure that the company offers competitive benefits. P1 indicated:

Retirement investment programs such as 401k match for all employees, Career advancement opportunities, award of excellence to recognize high performing employees, financial assistance programs for employees who need financial assistance, good relationships with employees, open line of communication with all employees, safe working environments, apprenticeship programs, and availability of adequate equipment.

Participant P4 stated that “we used competitive pay to strive on keeping our team feeling valued and appreciated.” Many construction companies faced with the given uncertainty have reduced their profit margins by increasing employees’ salaries to strengthen their organizations’ position to acquire, maintain and retain skilled labor (Sami et al., 2022). P5 alluded that, “our company does our best to keep our employees happy while striving to keep their salary within industry norms and the low turnover rate in the company is due to how we treat and care for our employees”. During the pandemic, most businesses were closed due to the governmental lockdown; nonetheless, to retain their labor force, most construction companies made full payments to their employees to sustain their skilled labor (Khalfan and Ismail, 2021). All listed participants and the interviewed participants indicated that employees’ morale and well-being are paramount when striving to acquire, retain, and sustain skilled labor.

Theme 2: Challenges of Recruiting Skilled Labor

All participants explained that the task of recruiting skilled labor has been a challenging experience for them, they explained that there has been a general lack of applicants for skilled labor positions due to the general shortage of skilled laborers in the country. P1 indicated: “On a national level, potentially global, the interest in young people wanting to learn a trade has declined. Meaning all the companies that employ skilled labor are hiring from a diminishing pool of potential employees”. Construction companies should invest in recruiting younger skilled labor, who would be comfortable and evolve with technology, which can help to stimulate the company’s productivity (Won & Chang 2021).

P4 stated that “another reason for a low number of applicants is the proximity of the geographical location from the firm to a residential area. Recruitment is also difficult because of some financial reasons”.

P5 indicated:

The insurance requirements hinder the employment of some skilled laborers. One of the issues that we face is the insurance requirements. The requirements and insurance protocols make it very hard to hire skilled labor. For example, we may want to hire someone but because of the insurance policies, he/she cannot drive our vehicles. Because of issues like those we had to change our insurance company to a less stringent company.

Most participants noted that financial challenges in recruitment include low pay and the challenge of underqualified applicants requesting premium pay. Participants

explained that the recruitment challenge can be salvaged through the training of unskilled employees to become skilled, the use of signage for position advertisement, and offering the applicants multiple incentives. P6 emphasized: “Incentives for hiring to include one-time bonuses, referral bonuses, increased flexibility for employees, daycare provided, onsite health, or reserved health location for employees are some additional incentives that may aid in recruiting”. Organizations that offer stronger incentives to acquire and retain skilled workers, manage employee assessment of financial securities; thus, enabling employee retention and avoiding unnecessary employee turnover (Chen et al., 2022).

Theme 3: Mitigation of the Barriers Hindering the Success of the Recruitment and Retention Strategy

The participants suggested that the recruitment and retention barrier can be eliminated through the combination of multiple strategies. The most prevalent strategies are the aggressive training of personnel to move them from being unskilled labor to skilled labor. Additionally, the participants suggested cross-training amongst various departments in the company, this would likely allow room for flexibility of role and the identification of the most productive unit for individual employees. For example, P5 indicated:

I continue to promote within, to create an opportunity to grow into other levels of the company. We have training classes and motivational seminars. Increasing the pay of skilled employees is another way of eliminating the challenging recruitment and retention in the construction industry. The participants

highlighted that a system in which the pay increases as the productivity increases is also a viable system for the elimination of the challenge of recruitment and retention.

The skilled labor shortage in the construction industry in recent years has created an environment where many construction companies are now implementing apprenticeship programs to train young people to focus on the skilled labor shortage (Qsuizugbo et al.,2022). The participants P5 further suggested that:

Firms must embrace a system of prioritization where projects that bring the biggest profits will be prioritized over the others. The high-performance project is focused on the available manpower of the firm. Other mitigating factors include: (a) excellent communication between employees and management, (b) flexible work hours, (c) improving benefits package (d)organizing motivational seminars for employees (e) embracing remote work where possible, (d)seeking and respecting the opinion of the employees.

P6 indicated:

Feedback to the recruiting function is needed so the recruitment function can explore different methods to recruit and provide feedback to corporate leadership to create an environment to improve recruiting. Open and honest discussion between recruiting and senior management is necessary. When working as a team, recruitment becomes easier and increases the quality of the candidates. P6 also noted that it has become necessary to change expectations for the organization given the challenges for recruitment in today's environment. P6 indicated that

prioritizing projects and pushed several out to future years. In addition, to pay increase, and cross-training among departments.

As further noted by Qsuizugbo (2022), skill labor performance of construction projects is a topical matter within the industry; therefore, understanding the circumstances affecting the performance of construction projects is vital for the development of strategies to improve its outcome.

Theme 4: Need for Loyalty of Skilled Employees to the Firm in a Highly Competitive Market

Participant P4 articulated that the company strongly believes that the loyalty of skilled employees in a highly competitive market can be reinforced with: (a) 4% matchup on retirement investment plans such as the 401k plans, (b) bonus to all employees, (c) company-sponsored apprenticeship programs, (d) employee time off if requested, (e) fiscal year bonus, (f) friendly events like food buying, (g) increased bonus with years of service (h) life insurance policy, (I) promoting cordial relationship between employees, (j) provision of lunch (k) provision of water breaks (L) remote work (m) vacation sponsorship, (n) vision, dental, and medical insurance (o) work time flexibility, and (p) everybody is recognized (giving everybody a sense of belonging). P5 also stated that “implementing a cohesive environment that provides good pay and benefits could go far in securing loyalty”.

Theme 5: The Critical Importance of Addressing the Labor Shortage

Participants P3, and P5, explained that the national drop in the number of skilled labored workers can be addressed and must the addressed. They explained that it is

pertinent for the nation to go back to the era of high school tradesmanship programs where they train high school graduates to become skilled laborers. The firms must come together to create campaigns that would educate youth on the short and long-term benefits of being a skilled laborer. Especially educating them on how being a skilled laborer can easily become a general contractor. P3 indicated:

One of the biggest things that I would like to share with the greater community of contractors within the construction industry that are seeking to hire skilled laborers, is the idea of apprenticeships that used to take place in trade shops and high schools. Apprenticeships used to be a great attribute in the U.S. and around the world. Apprenticeships from high schools were a key component in developing skilled labor for many who didn't desire to go to college, or even those who went on to college. Today that element of apprenticeship doesn't exist. As a result, most of the guys coming into the workforce don't know how to read a tape measure. A lot of laborers coming into the workforce do not know how to use a drill or a hammer, if we can go back to tradesmanship programs in schools, this would help tremendously on the long-term skill labor shortage. The generation from the sixties and eighties is now retiring and leaving the workforce with no replacement, which will further create an enormous gap.

Participant P5 emphasized the importance of “cross-training, as this ensures that employees are designated to their most productive area. Increasing the work hours with more pay to allow for faster project delivery and giving of gratitude to employees.”

Theme 6: Evaluation of the Effectiveness of Strategy to Address the Skilled Labor

Shortage

Participant P1 expressed that the effectiveness of the strategies to address the shortage of skilled labor can be thoroughly evaluated using multiple means. The participants expressed that an open forum was instituted for the assessment, the open forum consisted of business owners and hiring leaders, who discuss and evaluate the effectiveness of the strategies. P1 indicated: “The organization has spent considerable time assessing the strategies. An open forum was created through meetings that consisted of business and hiring leaders.”

P5 indicated: “Employee feedback through surveys and open discussion between recruiting and senior management was also identified by the participants as an effective way to evaluate the effectiveness of the strategy. The feedback of the employees on how they felt about the implemented strategies will be used to evaluate their effectiveness”.

P3 noted that “the strategies implemented have worked and has continued to work for thirty years. P3 stated that providing his employees with the appropriate tools, adequate salary, and a safe working environment will foster and retain skilled labor for years to come. P3 further stated that these strategies have worked for him, and he does not plan on changing anything.”

Theme 7: Positive Results From the Strategic Changes

All participants explained that the strategic changes in theme 3, (mitigating the barriers hindering the success of recruitment and retention strategy), and theme 4, (the skilled employee must be loyal to the firm in a highly competitive market yielded

positive results). They highlighted that it improved the morale of the skilled laborers and in turn led to unprecedented growth in the firm. For example, P5 noted, “The simple little kind gestures that the company does goes a long way as we see the changes in the employee’s morale”. Additionally, participant P2 explained that there is a significantly higher number of people who are now willing to work in construction:

A lot, based on our environment, most people don’t want to work in the working conditions that this job has. So, by motivating and increasing salaries, we have seen a lot of changes based on those implementations. P2 further indicated I have noticed that the strategies have helped us identify the leaders from the followers. You have ones who want to take charge and do good work, while some just want to come to work, do their task and go home.

P3 indicated:

The changes that I have seen are much better than what we had before. We understand that not everyone that comes into the company is going to be a long-term employee. So, the people that are excited about working for my company are met with the necessary resources to let them feel complete. In return, the day-to-day challenges become less and productivity increases. Thus, the company has grown tremendously.

Theme 8: Impact of COVID on Strategy

All six participants explained that the COVID pandemic dealt a great blow to their business. They explained that they witnessed an overall shortage of staff and a highly inconsistent workforce. This is mainly because the people were most likely to go

away from work due to the following COVID-induced reasons: (a) sickness, (b) need for isolation after exposure to COVID-19, and (d) the sickness of family members.

P1 indicated:

COVID-19 has created several issues. One, it has created an inconsistent workforce as many people are missing work because either they were sick, their family members sick, or even just exposed to someone who contracted the virus. Additionally, the pandemic exposed people to how they can make money virtually, thus, people now prefer working virtually rather than working physically, which is further contributing to staff shortage. The previously mentioned problems and shortage in sales led to the bankruptcy of some firms.

P6 indicated:

The pandemic main thing is that the organization has had to recognize that it was necessary to evaluate all projects, departments, people, and environments to evaluate priorities going forward. In essence, the organization has had to almost completely retool how we think, move, and react as the workplace has potentially permanently changed with COVID-19.

Theme 9: Strategies for Contending With COVID-19

All six participants indicated that the following strategies were used to contend with the challenges presented by the pandemic: (a) Adhering to COVID-19 protocols, (b) increased pay (c) making sure employees are comfortable (d) management care for the wellbeing, (e) use of mask and sanitizers (f) more flexibility with working hours (g) more robust internal training (h) protective gears (I) use of protective gears. The

implementation of these strategies has shown to be consistent with all six participants and has yielded positive results for the six construction project staffing managers within the U.S. construction industry.

Applications to Professional Practice

The findings described herein, include the imperatives for the in-tandem importance for the invocation of the transformational leadership strategies project staffing managers to decrease skill labor shortage in the U.S. construction industry. This study can be valuable to project staffing managers striving to formulate and implement strategies that may help in retaining skilled labor. As articulated by Kim and Kim (2017), the communicated inspirations and motivations by transformational leaders empower subordinates to pursue their aspirations. Project staffing managers who can implement strategies for the varying situation of skilled labor shortages may obtain organizational success. The implementation of positive reinforcement, ensuring that staff is adequately compensated for work, providing good benefits, ensuring flexible work schedules, apprenticeships programs, and bonuses are some of the professional practices that construction project staffing managers can implement to help in reducing skill labor shortage. Khanh and Linh (2022) emphasized that worker-related attributes are dominant among crucial factors influencing labor productivity. The communication from participants indicated that transformational leadership is a key component that may guide project staffing managers in retaining skilled labor in the construction industry.

The findings from this study indicate that the implementation of strategies could consequently benefit commercial and residential construction staffing managers within

the industry by recognizing and adopting strategies for retaining skill labor shortages. The study findings further showed that the current trend in the construction industry will continue to widen the skilled labor gap. As noted by Okoro and Adediran (2022), the construction industry is utilizing revolutionary technology to harness and offset construction stagnated productivity. The projection for the U.S. construction industry will continue to grow and more skilled labor will be needed to fill the gap according to (U.S. Bureau of Labor and Statistics, 2021) by 2030, the U.S. construction industry will need over 315,000 skilled labors to fill the labor shortage. Gheisari (2019) highlighted that the construction industry has been faced with the demand to increase productivity and meet goals more expeditiously over the past decade, which has led construction companies to now turn to automation to counter the main challenges of low productivity and lack of skilled labor. Implementing strategies from this study may further assist in harnessing and reducing the skilled labor shortage in the construction industry.

Implications for Social Change

The dissemination and invocation of findings from this study could provide the impetus for positive social change by aiding in the recognition of some of the advantages to project staffing managers within the construction industry in applying successful strategies in retaining skilled labor. The objective of this multiple case study was to explore strategies project staffing managers used to address the skilled labor shortage. The strategies discovered could support the validation of implementation required to sustain skilled labor. Brinkman (2021) noted that skilled labor is vital to the survival of the construction industry and implementing strategies that will sustain skilled labor is

essential. The study results could contribute to positive social change by enhancing the approach project staffing managers use to acquire and retain skilled labor in the U.S. construction industry. The findings, recommendations, and conclusions of this study could be useful for the implementation of strategies that project staffing managers may use to hire and sustain skilled labor in the U.S. construction industry.

Recommendations for Further Research

My recommendations for further research would be in taking a different approach other than a multiple qualitative case study. I propose using a quantitative approach, which may further delve into the numerical analytical aspect of the skilled labor shortage. In addition, I proposed expanding on the geographic region of study to enhance a broader understanding of the severity of the problem. It may also be beneficial to take a deep look into how skilled laborers are recruited. Looking into apprenticeship programs could further shed light on why the industry is lacking skilled labor in the U.S. construction industry. Further research on why the younger generations is drifting away from skilled labor may also provide insight into possible understanding of what would be crucial to enhance the strategies needed to address the skilled labor shortage. More data that are available on this topic could further enhance the approach and strategies that project staffing managers in the U.S. construction industry can use to mitigate the skilled labor shortage.

Reflections

I embarked on this doctoral journey with the hope of harnessing a broader understanding and knowledge of the intricacies related to business and leadership. This

journey was filled with obstacles that were not anticipated and was beyond control. In the second semester, I lost my younger brother Leon due to a motorcycle accident. The devastating emotional effect of the loss brought me to a very low place. Dealing with the emotional distraught, work, family, and tedious schoolwork, was very complex.

Nonetheless, I kept to the promise I made to my mom Joyce that I would make her the mother of a doctor. She was there to encourage me as I was barely coping with the daily anguish of losing my brother. One year, nine months later, my mom passed on unexpectedly, which further enhanced my turmoil. Subsequently, I pushed on as I realized that the anguish that I faced was a learning curve to teach me humility and perseverance. Lastly, I am humbled and extremely proud of my academic accomplishment, knowing that it has contributed to the depth of my knowledge.

Furthermore, the findings of this study will therefore likely serve in fostering positive enhancement to existing management practices and advance the quest of project staffing managers, who rigorously strive to implement strategies, to sustain skilled labor in the U.S. commercial and residential construction industry.

Conclusion

The purpose of this qualitative multiple case study was to explore strategies project staffing managers used to hire, retain, and sustain skilled labor. The primary data was collected through semi structured interviews, which fostered the emergence of 9 major themes. The strategies gathered from this study showed that through the lens of transformational leadership approaches, construction project staffing managers and others can implement positive reinforcement that may help in mitigating the skilled labor

shortage. The study findings indicated that the labor force is at a skilled labor deficit caused by older workers leaving the workforce without being replaced, while the construction industry continues to rise exponential. In addition, the COVID-19 pandemic also enhanced the skilled labor shortage due to potentially inadequate governmental monetary assistance. Tradesmanship programs do not appear as enticing to the younger generation as many are turning to modern tech jobs, which provide more lucrative monetary packages and benefits. Subsequently, the implementation of adequate salary, better benefits, bonuses, flexible work schedule, a workplace that shows value and employee motivation, apprenticeship programs, and internal promotions could enhance a positive reinforcement for addressing the skilled labor shortage in the U.S. construction industry. The triangulation between the findings of this study and other industry data has yielded the conclusion, that the implementation of strategies derived from this study and mentioned could serve project staffing managers in acquiring and retaining skilled labor within the U.S. commercial and residential construction industry.

The data triangulation also yielded further insight, that construction industry firms and governmental agencies must be willing to collaborate with high schools, trade schools, and colleges to provide incentives that will attract young people into skilled labor career opportunities. Failure to incentivize skilled labor will likely create further havoc on an industry that is facing turmoil not only in the United States but on a global scale. Nonetheless, the outlook for the construction industry seems to be on a positive incline as many younger workers are turning to technology, which is also being pushed to the forefront of the industry as automation is replacing a lot of skilled jobs. For example,

many commercial construction companies are turning to prefabrication to enhance and meet their deadlines. On the other hand, many residential constructions home builders are also striving to find more efficient and effective ways of completing projects. The downturn in the construction industry may be indebted to skilled labor for past achievements, however the need to invigorate interest in this profession may require more adeptness and personalized touches, as espoused by the principles of the transformational leadership theory, cited as solutions in this study. Furthermore, there is no simple path to reducing the skilled labor shortage as both commercial and residential construction companies are facing the same dilemma globally. In the next fifteen years, the construction industry must be more adaptive to infusing technology for recruitment and retention of skilled labor jobs. What consumers, however, will care about in the future is possibly not merely skilled laborers, but the cost, time, and efficiencies. The onus will be on skilled leadership to balance human and technological resources, through skillful and compassionate, empowerment, and adaptation, to positively advance the fortunes of the construction industry.

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Appendix A: Invitation Email

Dear (Potential Participant),

My name is Leabert Stewart. I am a doctoral student at Walden University. I am presently performing a research study exploring strategies project staffing managers in the US construction industry use to approach the skilled labor shortage. I found you meet the research participation eligibility criteria. The eligibility criteria include participants are (a) have over five years of experience in the study phenomenon, (b) successful in implementing strategies that worked in recruiting skilled labor, and (c) located in the sampling population (southeastern United States). I have attached the consent form document for you to review. If you would like to contribute to this study, please reply to this email affirming your availability for 10-15 minutes pre-interview. During the pre-interview, I will give you further information about the research. Thank you for your time. I look forward to working with you.

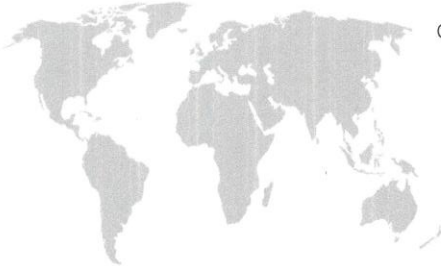

Sincerely,

Leabert Stewart

C: [redacted]

Email: [redacted]

Appendix B: CITI Program Certificate of Completion



Completion Date 25-Jan-2022
Expiration Date N/A
Record ID 46860482

This is to certify that:

Leabert Stewart

Has completed the following CITI Program course:

Student's
(Curriculum Group)
Doctoral Student Researchers
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Walden University

Not valid for renewal of certification through CME.



Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w42e62698-063f-4789-9418-18c3690fe42b-46860482

Appendix C: Interview Protocol

Interview Title: “Business Strategies for Reducing Professional Labor Shortages Within the Construction Industry” The purpose of this study is to explore what strategies construction staffing project managers use to address the skilled labor shortage in the construction industry.

What I will do in the interview**The script of what I will say**

- | | |
|---|--|
| <ul style="list-style-type: none"> • Introduce myself | <p>Script: Hello (Participants Name) I am Leabert Stewart. I am a doctoral student at Walden University. Thank you for supporting this study focusing on the skilled labor shortage in the U.S. construction industry.</p> |
| <ul style="list-style-type: none"> • Consent form | <p>Script: I will now provide you a copy of the Signed consent form and ask if there are any questions. I want to take the opportunity to reiterate that this interview is voluntary, and you will not receive payment for participating. I thank you for your support.</p> |
| <ul style="list-style-type: none"> • Background of the study | <p>Script: I would like to present you with a Brief background of the study on how project staffing managers of U.S.</p> |

construction industries are dealing with a skilled labor shortage. My objective is to identify successful strategies that may be beneficial to help in the reduction of a skilled labor shortage. I have designated a code to ensure your name is kept confidential; your code is []. If there are no further questions, I will start the interview.

- Ask permission to record
The interview.

Script: To support reviewing what is said, I would now like to start recording the interview, and if you consent, I will start the recording.

What I will do in the interview

The script of what I will say

- Ask interview questions
- Continue to ask question to support a deep understanding

1. What strategies do you use to retain skilled labor to ensure projects are completed on time and within budget?
2. What difficulties do your organization's construction staffing managers face in recruiting skilled labor?
3. How did you assess the relative effectiveness of your strategies for

- Summarize to ensure a full understanding of the answers

addressing the skilled labor shortages?

4. How did you identify and address the key barriers to implement the strategies for addressing your organization's skilled labor shortages, and increasing productivity, and profitability?

5. What organizational changes have you experienced since implementing new strategies?

6. How has COVID-19 pandemic affected the strategies used to address the skilled labor shortage, productivity, and profitability within your organization?

7. What new labor strategies have you implemented to contend with the COVID-19 pandemic?

8. What, if any, incentives do your organization offer staff to encourage loyalty?

9. What else can you share about strategies your organization developed and implemented for addressing skilled

labor shortage and achieving profitability
which we have not discussed?

- Explain the member checking
Review and finish the interview

Script: At this time, I have finished questions. Later, I will complete a summary of the recording of the literature on a Word document. As previously mentioned, I will send a summary of the interview to allow you to validate the accuracy of the information that is presented. Such a process is known as member checking. I will conduct a summary of the final study findings and send it to you via email. Thank you for your time and support with the interview. I will now finish the interview and turn off the recorder.

Appendix D: Interview Questions

1. What strategies do you use to retain skilled labor to ensure projects are completed on time and within budget?
2. What difficulties do your organization's construction staffing managers face in recruiting skilled labor?
3. How did you assess the relative effectiveness of your strategies for addressing the skilled labor shortage?
4. How did you identify and address the key barriers to implementing the strategies for addressing your organization's skilled labor shortages, and increasing productivity, and profitability?
5. What organizational changes have you experienced since implementing new strategies?
6. How has the COVID-19 pandemic affected the strategies used to address the skilled labor shortage, productivity, and profitability within your organization?
7. What new labor strategies have you implemented to contend with the COVID-19 pandemic?
8. What, if any, incentives do your organization offer staff to encourage employee loyalty?
9. What else can you share about the strategies your organization developed and implemented for addressing skill labor shortage and achieving profitability which we have not discussed?

Appendix E: Themes, Codes, and References

Name	References
Contending with Covid 19	0
Adhering to Covid 19 protocols	1
Evaluation of work priorities	1
Increased pay	1
making sure employees are comfortable	1
Management care for the wellbeing	1
Mask and sanitizers	1
More flexibility	1
More robust internal training	1
Protective gears	1
Tent for isolation	1
Use of protective gears	1
Employee Retention techniques	0
401K	1
Advancement opportunities	1
Appropriate renumeration	2
Award	1
Experience affects project completion	2
Financial assistance programs	1
A good relationship with employees	1
An open line of communication	1
Paint time off	1
Retention determines experience	1
Safe environment	1
Tuition provision	1
Unavailability of equipment	1
Understanding the driving factors of employees	2
Impact of Covid on strategy	0
Close of business	1
Continuous change in strategy	1
Inconsistent workforce	2
People prefer virtual work	1
Shortage of staff	1
Mitigating against barriers hindering the success of the recruitment and retention strategy	0
Aggressive training of personnel	2

Cros training amongst departments	1
Excellent communication with management	1
Flexible work hours	1
Improving benefits package	1
Increased pay	2
Motivational seminars	1
Pay increases with productivity	1
Prioritization	1
Remote work	1
Seeking and respecting the opinion of the employees	1
Using a third party to find personals	1
Recruiting skilled labor is a challenging endeavor	0
A positive environment is needed	1
Company distance	1
Difficulty in getting skilled labor	1
Insurance protocols make recruiting hard	1
Lack of applicants	2
Low employee retention due to low pay	1
Multiple incentives	1
Training is required	1
Underqualified people want premium pay	1
Use of signage	1
Skilled employees must be loyal to the firm in a highly competitive market	0
4% of 401k plans	2
Bonus to all employees	1
Company-sponsored apprenticeship programs	1
Employee time off if requested	1
Fiscal year bonus	2
Friendly events like food buying	1
Increased bonus with years of service	1
Life insurance policy	0
Promoting cordial relationships between employees	1
Provision of lunch	2
Provision of water breaks	1
Remote work	1
vacation sponsorship	1

vision, dental, and medical insurance	1
Work time flexibility	1
The effectiveness of the strategy to address the skilled labor shortage is evaluated	0
An open forum for continuous assessment	1
Employee feedback	1
Everybody is recognized	1
Happiness is maintained through effective communication and commendation	1
Open discussion between recruiting and senior management	1
Provision of the right tools	1
Right pay	1
Safe environment	1
The labor shortage can be addressed	0
Apprenticeship increases productivity	1
Cross-training to ensure that employees are designated to their most productive area	1
Gratitude to the employees	1
More work hours	1
New programs to increase productivity	1
The need to go back to apprenticeship	1
The strategic changes yielded positive results	0
Employees are willing to work in construction	1
Increased employee morale	1
Leaders can be separated from the followers	1
Unprecedented growth	1