



Critical Success Factors Toward the UAE Construction Project Development

Mubarak Omar Alawbathani^{1*}; Suraya Ahmed²

^{1,2}*Institute of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka. Email: (surayaahmad@utem.edu.my)*

*Corresponding Author

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ABSTRACT

Due to strict budget and time constraints, construction projects have become increasingly difficult for contractors and clients in recent decades. In the twenty-first century, sustainable development is a major problem. This research aims to determine critical success factors' role in the construction project development in the United Arab Emirates. Based on the theory of resources and capabilities, this study nominated critical success factors that top management support, project mission, project personnel, and project plan toward the construction project development. A quantitative approach was used to collect primary data for this study by employing the questionnaire instrument. This study is a type of analytical technique study. The data of this study was obtained from 371 managers from the UAE construction companies. Smart PLS software was used to test the constructed hypotheses of this research. This study revealed a positive and significant relationship between top management support, personnel, project mission, project plan, and construction project development in the UAE. This study recommends that the manager assign people with the proper abilities, skills, and personalities to each assignment. Each worker should know what is expected of them and what they will need to hand in at the end of the project.

1. Introduction

Abu Dhabi's government decided in 2013 to subsidize AED330 billion for real development over the next ten years, focusing on social development, particularly human services, education, housing, and strategic transportation projects (Gunduz and Yahya, 2018). In Dubai, the expansion of the existing conurbation continues, and construction continues on various projects, including completing the Downtown Dubai and Business Bay developments. Additionally, work is proposed in and around Dubai's second major air terminal (Maktoum International), which coincides with the current declaration of Mohammed bin Rashid City's construction. This sprawling, mixed-use development will include retail outlets, professional offices, and the "Shopping Centre of the World," which will be the world's largest shopping centre (Kerr et al., 2013).

As the United Arab Emirates is investing significant capital in these construction projects, a sound management system must be in place (El-Sayegh, Manjikian, Ibrahim, Abouelyousr, & Jabbour, 2018). According to Mohamed and Sameh (2018), local construction companies cannot deliver high-value construction projects, prompting the UAE government to increase its reliance on foreign construction firms. This affects the performance of local businesses, as most of these businesses work as subcontractors for multinational corporations. Additionally, AlGheth and Sayuti (2019) indicated that several construction projects in the UAE were delayed due to various factors. One of these causes was a scarcity of resources related to the shortage of raw materials. Massive construction projects such as Abu Dhabi Airport took over three years to complete, straining the economy. Any delay caused by inaccuracies in the planning, executing, or controlling of the project's operations may have serious and costly consequences. Apart from that, legal issues arise when conditions are breached on an international scale; cases are received and continue to gain traction in various developed and developing countries due to the absence of a mediating innovation strategy in the planning and controlling operations in a construction project. AlNuaimi and Khan (2019) asserted that governments rely on foreign or multinational firms to provide superior, innovative work. The evolution and improvement of project management are outcomes of the current era's development of construction project management. The increase in unit-based competition based on time, cost, and quality, as well as the result of communication systems and methods for data collection and analysis, combined with the diversity of mega-complex construction projects requiring considerable, diversified resources, increases the risk borne by the construction project's authorities in terms of size, implementation, and benefits.

A project's success is contingent on various factors, including top management, the project's mission, personnel, communication, and the project's schedule/plan. It has been suggested that variables such as information/communication may affect the development of construction projects (Pirotti et al., 2020). However, there is a dearth of research regarding a

comprehensive framework encapsulating the factors that influence the development of construction projects. Additionally, Wuni et al. (2021) recommended additional research into communication, top management, project mission, personnel, and project schedule/plan. Unterhitzenberger and Bryde (2019) highlighted context-related factors such as organisational justice and project performance as enablers of success and the mediating role of key success factors in construction project development from a theoretical perspective. Sweis and Jaradat (2021) recommended expanding the research to include factors affecting construction project development from the perspective of managers and employees. Recognizing the importance of bridging these knowledge gaps in the development of construction projects, this research contributes to the literature by addressing the need for empirical research on the factors that may affect the development of construction projects in the UAE construction industry.

According to Hussain et al. (2020), there is a low level of awareness among UAE construction providers about critical success factors for construction project development. This impediment has harmed the UAE construction industry's ability to access regional and global markets. According to Evans et al. (2021), construction project companies that consider critical success factors have a better chance of long-term growth and expand their local, regional, and global market share. Obi et al. (2021), Aghimien et al. (2020), and Lee et al. (2021) previously classified critical success factors into internal and external success factors. Internal factors refer to essential factors of success that are within the control of the project manager, whereas external critical success factors are within the control of stakeholders. This study focuses on internal success factors, as Watfa and Sawalha (2021) noted that most of the UAE's weaknesses stem from a lack of awareness of internal critical success factors. As a result, it is necessary to identify critical success factors for construction projects in the UAE. This study focuses on four essential factors of success that top management supports: the project's mission, personnel, and schedule.

2. Literature Review

It is necessary to consider the fundamental premise of the theory of resources and capabilities, according to which the existence of differences between firms is sustained over time and is the source of their competitive advantages. The company's and within its level of analysis places a premium on the examination of its capabilities and resources (as units of analysis) and the determination of the conditions under which they must operate in order to achieve competitive advantages.

2.1 Development of Construction Projects

Development of construction projects is a business process that encompasses activities ranging from reshaping and re-leasing existing structures to purchasing raw land and displaying land that has been created or packaged for others. Land designers are groups of people and organisations that facilitate these exercises and transform concepts from paper to tangible ownership. Land development is not synonymous with construction, despite the fact that many engineers are involved in construction procedures (Buvik and Rolfsen, 2015).

2.2 Success Criteria: Insights from Construction Projects

Tripathi and Jha (2018) define it as "critical performance areas critical to the organization's mission fulfilment." Managers are aware of and implicitly consider these critical areas when establishing objectives and directing operational activities and tasks critical to achieving those objectives (p.2). It is a methodology that assists in determining the action and effect of successful management; it should be noted that critical success factors are unique to each company and item, identifying the processes that contribute to a company's or business's success (Adu and Opawole, 2020). The CSFs represent initial objectives that, when implemented, will enable the company's strategy to be implemented successfully. Similarly, once the CSFs are identified, managerial experience is required to develop and implement the strategic plan, as Kassem et al. indicate (2020). Recognizing critical success factors is critical for a business because it enables it to identify which processes it excels at and thus adapt to market conditions or develop new business strategies with greater stability both within the company and in its competitive environment (Wang et al., 2021). As a result, it is emphasised that CSFs should be viewed as the central axis in a company's business models or strategies, as they are inextricably linked and their proper application will enable the organisation to succeed (Akbari et al., 2018). The significance of critical success factors is that they are comprised of a small number of truly critical activities on which a manager must concentrate his or her attention. As a result, determining the role of factors affecting construction project success is critical, including top management, project mission, personnel, and project schedule/project plan. Pirotti et al. (2020) identified four critical factors for project success in construction. As one of the first studies in its field, it proposed a set of CSFs for construction project management practises.

2.2.1 Top Management Support

Engagement of top management is the most critical factor in determining the measures taken in the construction industry to improve the performance of construction projects (Pheng, & Teo, 2018). Additionally, as Chin, Tummala, and Chan concluded, top management commitment is critical for the successful development of construction projects (2017). Additionally, top management engagement is critical throughout the construction process to ensure quality implementation, not just during the planning or initiation phases. Similarly, (Liu et al., 2021) emphasised the importance of top management dedicating time to it, as well as supporting and implementing construction project development, rather than ignoring it. The implementation of a construction project entails a number of requirements or actions on the part of the organisation in terms of management commitment. These include the following: transferring the importance of customer satisfaction while adhering to by-laws and other regulatory requirements, establishing a clear quality policy, ensuring the development of basic quality objectives, incorporating management input through reviews, and finally, ensuring compliance.

2.2.2 Project Mission

The most frequently cited barriers to effective product development (Sinoh et al., 2020), are mismanagement of the team's internal dynamics (Cui, 2016) and unclear team goals. While increased heterogeneity fosters creativity and problem solving in cross-functional teams (Chan et al., 2019), these teams may be prone to frequent disagreements and conflicts. Obi et al., (2021) propose that members of the product development team sign a written agreement that establishes a clear direction for product development programmes and thus reduces uncertainty. A shared purpose, goals, and direction, according to (Aghimien et al., 2020), are critical enablers of a high-performing team. A project's mission is used to define the true nature of the project, including its purpose, goals, and objectives. According to (Lee et al., 2021), the purpose of the project should be to embody "the collective goals and aspirations of an organization's members; (to serve) as a bonding mechanism that assists various parts of an organisation in integrating and combining resources." Each project requires a clear understanding of its purpose, which aids teams in achieving common goals, according to Locke and Latham's (2002) goal setting theory. In the current study, we define shared project mission as the extent to which (Whang et al., 2019) argue that a project requires a clear and concise mission that can be captured in an explicit, measurable project charter that is typically articulated even before the team is selected. (Omotayo et al., 2018) have emphasised the critical nature of developing a shared mission and communicating mutual goals through a well-defined set of expectations, particularly during the early stages of a partnership with suppliers and customers. For product development projects, the mission statement should clearly define the fit between the firm's internal capabilities and market realities (Mathar et al., 2020).

2.2.3 Personnel

It may seem strange that none of these critical success factors directly address "human factors," despite the fact that it is rapidly becoming accepted wisdom that people, not processes or systems, deliver projects. As Wuni and Shen (2020) stated in the title of his paper, "When it comes to project management, the people make the difference." It is not as if some factors involve processes and others involve people every process is performed by people, and ultimately, the adequacy is determined by people. Thus, the SuccessFactors' "human" side is ingrained in their very fabric.

2.2.4 Project Schedule/ Plan

Sfakianaki (2019) defined construction schedule as the duration of a project's completion. Delays in successfully completing construction projects are considered one of the most common setbacks in the construction industry. Delays have enormous consequences for all individuals and organisations involved in the project. The owner may suffer severe consequences if delaying the start of the project prevents him from obtaining the anticipated project revenue and increases financial costs. Additionally, the owner may run into a number of other issues as a result of the commitments made based on the contract's delivery date (Kavishe and Chileshe, 2019). On the contractor's side, delaying the start of the project results in cost overruns due to increased personnel costs, increased material costs, increased financial costs, and payment of contract penalties (Eyiah-Botwe et al., 2020). As a result, contractors' reputations may suffer when competing for additional contracts. Underperformance on the project schedule can also have an effect on the project's quality, as the construction team is unable to control the quality of work when the primary objective is to complete the project on time. When this occurs, workers are typically compelled to work overtime and increase production rates, which frequently results in failures and reworks (Ayat et al., 2021). On a larger scale, delays in construction projects involving public assets such as schools may deprive the community of amenities that are frequently required urgently. To avoid all of these complications and setbacks, project managers and contractors should strive to implement management processes that facilitate project completion.

2.3 Success Criteria and Construction Project Development

Success in Projects and Project Management In the mid-1900s, early studies connected project management and success to the triple objectives of Time, Cost, and Quality (Al-Ageel and Alzobae, 2016). It is critical to distinguish between project success and project management success. Project success is measured against the project's overall objectives, whereas project management success is measured against traditional performance metrics such as cost, time, and quality. Baccarini (2014) also distinguished between two types of project success: product success, which is concerned with the goal and purpose, and project management success, which is concerned with outputs and inputs. According to Munns and Bjeirmi (2016), the difference between project success and project management success is due to the distinction between project management, which focuses on short-term objectives, and project success, which focuses on long-term objectives. According to Silva et al. (2017), there is no such thing as absolute success in a project; only perceived success exists. According to Al-Ageeli and Alzobae (2016), assessing project success is a difficult task because success is intangible and rarely agreed upon. According to Abdullah et al. (2017), project success is exceedingly elusive. The success of a project is suggested to be contingent on two major factors: issues about the project itself and issues pertaining to the client (Wang et al., 2016). Merwe (2015) divides project success into two categories: macro and micro. The macro view of project success considers the project's original concept; if that concept is realised, the project is successful.

On the other hand, from the micro perspective of a project, success is measured at the component level. According to Ghasabeh and Chabok (2017), 43% of professionals surveyed believed that project success is synonymous with projected management success, while 46% indicated that the two are diametrically opposed. Additionally, Omer and Haleema (2017) found that 48% of professionals surveyed believed that project success is synonymous with projected management success, while 52% indicated that the two are diametrically opposed. We can conclude that the term "project success" remains ambiguous in professionals' minds. According to Iram et al. (2017), in previous years, the straightforward definition of project success was based solely on the implementation phase of the project lifecycle. However, definitions of project success are required from the start to the end of the project and product life cycles these days. Merwe (2015) argued that a good schedule and cost performance mean little if the end product is substandard. According to Gomesa et al. (2016), project management and its techniques are only a subset of the project's broader context.

Independent of the project management process, projects can succeed or fail. When evaluating a project's success within an organisation, it is necessary to consider how it contributes to its strategic objectives; it cannot be limited to the efficiency of the project management processes (Iram et al. 2017). This assertion has been corroborated by additional researchers. According to Osorio et al. (2016), projects are vehicles for implementing strategies, and a project's objectives must be directly related to the organization's strategic objectives. And Banihashemi et al. have made a strong case for it. (2017) Most projects are integrated into their organisations' strategic management and must be evaluated based on their impact on the business's results. According to Srimathi et al. (2017), project success is a complex and frequently illusory construct, but it is critical for effective project implementation. A review of the literature on project success reveals that success is far more complicated than simply meeting cost, schedule, and performance specifications. Today, we understand that determining the success or failure of a project is a much more complicated process. Top management involvement (Al-Ageel and Alzobae, 2016), a project manager's leadership style, communication, collaboration, and the cohesiveness of a project team (Wang et al., 2016) are all associated with project success, particularly for high-complexity projects in manufacturing, construction, industry, and infrastructure. In terms of project management (PM) standards and practises, most studies failed to establish a link between a project manager's performance against widely used PM standards and the perceived effectiveness of workplace performance (Omer, Haleema, 2017). However, a recent study of Project Management Institute (PMI) members discovered a correlation between PM practise adoption and project success. The comparison of "low" and "high" performance project groups revealed significant differences in communication, human resource, cost, scope, risk, and quality management areas in favour of "high" project success (Banihashemi et al., 2017). The findings of the preceding studies demonstrate that two distinct groups of success factors can be distinguished, dating back to the task and relational orientations of leadership theories. The framework for the University of Michigan's school behaviour studies defined two types of leadership behaviours: employee and production orientation. According to Michigan researchers, these styles represented diametrically opposed sets of leadership behaviour (Merwe, 2015). In construction projects, technical planning and the controlling expertise of contractors (Al-Ageel and Alzobae, 2016), as well as the commitment, coordination, and competence of project participants (Wang et al., 2016), can all contribute to the success of the project. Additionally, behavioral management issues, such as commitment, participation, and goal commitment, can have a significant positive correlation with participant satisfaction, whereas a high level of team and task conflict detracts from overall satisfaction (Omer, Haleema, 2017).

Hersey and Blanchard developed one of the most widely recognised situational approaches. According to their theory, directive (task) behaviours establish objectives and methods, define roles, and explain how goals are to be accomplished, whereas

supportive (relationship) behaviours demonstrate social and emotional support for others, share information, solicit input, and offer praise, and involve two-way communication (Osorio et al., 2016). Additionally, the task and relationship approach is reflected in Fiedler's (1995) contingency theory and Bass's (1990) transformational leadership model, which posited that leadership could exhibit both transformational (people-focused) and transactional (task-focused) behaviours concurrently. The task- and people-oriented focus of leadership has also emerged in recent years in the field of project management, as an increasing number of studies have highlighted the human factor as a critical component of successful project implementation (Srimathi et al., 2017). Apart from that, researchers have examined the role of the project manager's leadership style in ensuring the success of the project. Additional research has established that successful project managers are primarily relationship-oriented (Merwe, 2015) and that relationship-oriented project managers generate more successful projects (Banihashemi et al., 2017). Emotional resilience and communication have been found to be significant in medium-complexity projects, whereas sensitivity has been found to be significant in high-complexity projects (Omer, Haleema, 2017). As a result of ongoing development and innovation, project management methods are now available for each project described in the recent literature. Even though both projects use similar project management techniques, one will succeed, and the other will fail. As a result, the implementation of a successful project is not primarily determined by project management techniques, structures, and systems but rather by the project's orientation toward its participants and stakeholders (Osorio et al., 2016). To investigate the relationship between the variables in this study, four hypotheses were developed based on the literature review:

- H1: A positive relationship exists between top management support and construction project development .*
- H2: A positive relationship exists between project mission and construction project development .*
- H3: A positive relationship exists between personnel and construction project development.*
- H4: A positive relationship exists between project schedule/ project plan and construction project development.*

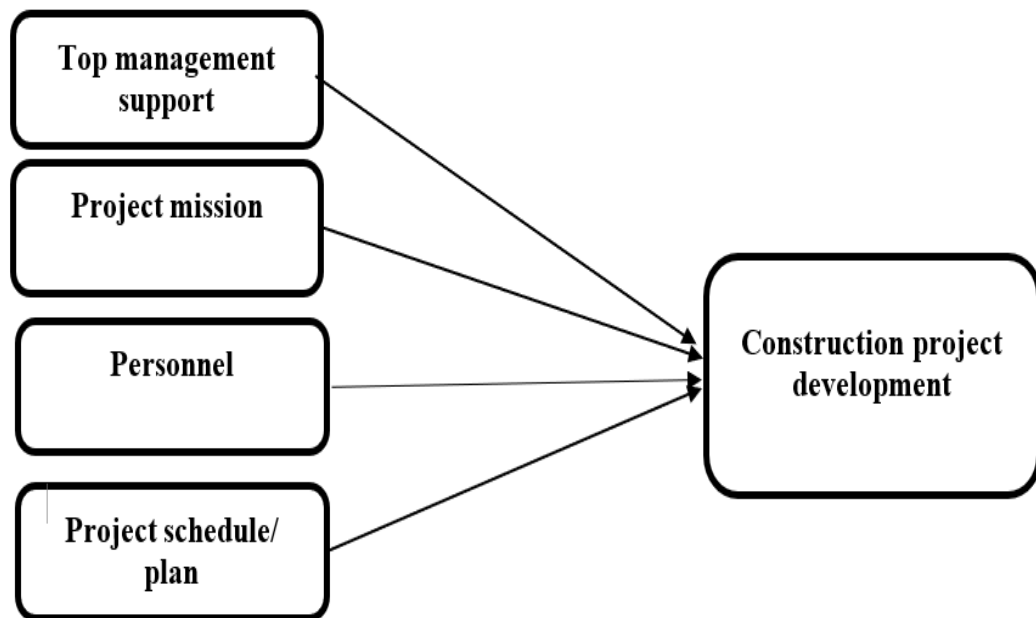


Figure: 1 Conceptual framework

Based on the above discussion, therefore, A research framework has been used in this study to outline possible courses of action and to present a preferred approach to an idea and thought. Research framework, as a basis of the research problem, indicates all the constructs (concepts), definition, and propositions that relate to a research problem. According (Al-Mohammad et al., 2021) identifying the role of factors which affect construction project success considering, top management, project mission, personnel, and project Schedule/ project plan is greatly needed. Pirotti et al., (2020) identified four critical success factors in construction projects. As one of the first studies in its (Chan et al., 2018) proposed a set of CSFs for construction project development on construction projects. This study primary focuses on exploring the factors that may affect critical success

factors on construction project development in the United Arab Emirates, this research adopts this triangulation in designing the conceptual framework of this research as shown in figure 1.

2.4 Research Gap

According to the literature review, there is a lack of agreement on the criteria for success. Even if a project is completed on time and within budget, it is considered a failure if it does not meet the company's strategic objectives. Thus, project success is distinct from project management success. Failure can be avoided by paying close attention to project management success criteria and critical success factors that, when missing, result in failure. Often, the success of a project is determined only at the conclusion of the project's lifecycle because project management outcomes are readily available and convenient to quantify (Thneibat et al., 2021, Silverio-Fernandez et al., 2019, Wuni et al., 2021). While the right project will almost always succeed regardless of project management success, construction project development can help ensure its success. Despite the fact that the success of projects is now evaluated using a variety of criteria, the social and environmental pillars continue to receive less attention. Attempting to establish a set of universally accepted project success criteria appears to be an endless task.

Numerous scientific and technological advancements have been made in the modern era in a variety of different fields, including scientific research, particularly in developed and developing countries, based on the findings of previous research studies such as (Moyo and Chigara, 2021, Kissi et al., 2020, Oladokun and Ogunbiyi, 2018), in which the researchers identified the problems and identified the research. His research and findings aimed to address and close the gaps discovered, and thus the researcher must, when preparing the Before conducting a study, a researcher must determine and identify a problem that he observed of the study, which can be accomplished by explaining the research gap. The research gap analysis is a technique that enables a researcher to compare the findings of previous studies that examined the same subject with the expected results of the current search. , If the desired results were not achieved in previous research studies such as (Oluleye et al., 2021, Amoah and Pretorius, 2020, Zaman, 2020), then another researcher with whom he works would clarify this in the research gap of his research.

The analysis of the research gap begins with the identification of the research problem in advance, followed by the interpretation of the research gap to research that demonstrates the areas that could be addressed. It also includes identifying and documenting the differences between current and previous research by thoroughly analysing the main items, measurements, and other assessments. Following an explanation of the research gap, the researcher will be able to determine the conduct study results that his research can reach in order to address and fill the identified gap. There are two types of gaps in the current research:

- A spatial gap: the research is in a very important field, which is the construction filed field for their UAE in which research was previously conducted, but in a different environment. This research is unique to be implemented in the UAE construction field.
- A concept gap: It is the application of various concepts that have not been applied by previous researchers that has been fought in the same field. This research applies the innovation, which has not been applied in the UAE construction field.

3. Data and Methodology

According to the National Economic Register (2018), the UAE has 11,676 unlisted construction companies. Meanwhile, the samples for this study were chosen using Krejcie and Morgan's sample size table (1970). Respondents were selected from among managers at the middle level of management and employees in the operations department of various construction companies. The questionnaire forms were distributed via electronic email in the United Arab Emirates. For The analysis of unit represented all construction companies (staff) in the UAE in this study. The questionnaires were distributed to middle management level managers and operational level department employees at various construction companies in the United Arab Emirates. These managers and employees comprised the study's sample.

3.1 Data Analysis

Following the compilation of appropriate data corresponding to the minimum sample size criteria, the data were extracted, compiled, and evaluated using the Social Science Statistical Package (SPSS), factor analysis, and structural equation modeling Partial Least Square (PLS). All concise and inferential statistics have been used as a form of data processing. Descriptive figures were used to illustrate the features of the samples quantitatively and to describe the survey rather than the population as a whole. Descriptive figures give a rundown of the research and the conclusions to be made. Several regressions and linear regression methods have also been used in data analysis.

3.2 Profiles of Respondents

Respondents profile test was used in the research to identify the backgrounds of the respondents. Table 1 shows the respondents profile for those participated in the study. As shown in the table, 68.4% of the participants belong to the male gender category and (n=253), while 31.6% of the participants belong to the female gender category and (n=118). The result confirms that male respondents were the majority. In terms of the age of the participants, it has been noted that most of the respondents were in the range of 36-45 years old with n = 141 presenting 38.1%. It also found that there were 38 participants were in the range of 18-25 years old presenting 10.4%. There were 102 participants were in the range of 26-35 years old presenting 27.6%. And finally, there were 90 participants were in the age of above 45 years old presenting 23.9%.

According to the results showed in table 1, most of the participants hold master certificates with a percentage of 39.2% and n = 145. The study also found that there were 107 participants hold bachelor certificates with a percentage of 29.0%. There were 105 participants hold PhD certificates with a percentage of 28.4%. There were also, 14 participants hold other certificates with a percentage of 3.4%. It ensures that all the participants were well educated. The respondent's profile test also found that there were several types of positions for the participants, where there were 83 general managers presenting 22.5%. Also, there were 142 project managers presenting 38.4%. There were 87 regional managers presenting 23.5%. Finally, there were 59 divisional managers presenting 15.6%. These results ensure that there was a variety in the selected sample in terms of their positions, while the majority were project managers. In terms of company region, the respondents have shown that there were 109 participants from Abu Dhabi presenting 29.5%. While there were 129 participants from Dubai presenting 34.8%. Also, there were 40 participants from Sharjah presenting 11.0%. Also, there were 19 participants from Ras AlKhaimah presenting 5.1%. As well as there were 35 participants from Ajman presenting 9.5%. Also, there were 21 participants from Umm AlQuwain presenting 5.5%. Finally, there were 18 participants from Fujairah presenting 4.6%. It is noted that most of the participants are from projects in Dubai followed by Abu Dhabi. The experience of the participants ranged between less than 2 years and more than 5 years, 17.5% of the participants had an experience with 1 to 3 years with n = 65, 29.7% of the participants had an experience from 3 to 5 years with n = 110, and finally, 52.8% of the participants had an experience more than 5 years with n = 196. Most of the respondents were well experienced.

Table: 1 Profile of Respondents (N = 371)

	n	%		n	%
Gender			Education Level		
Male	253	68.4	High School	0	0
Female	118	31.6	Diploma	0	0
Position			Bachelor	107	29.0
General Manager	83	22.5	Master	145	39.2
Project Manager	142	38.4	PhD	105	28.4
Regional Manager	87	23.5	Other	14	3.4
Divisional Manager	59	15.6	Age		
Company Region			18-25 years old	38	10.4
Abu Dhabi	109	29.5	26-35 years old	102	27.6
Dubai	129	34.8	36-45 years old	141	38.1
Sharjah	40	11.0	46 years old and above	90	23.9
Ras Al Khaimah	19	5.1	Work Experiences		
Ajman	35	9.5	Less than 1 year	0	0
Umm Al Quwain	21	5.5	1 to 3 years	65	17.5
Fujairah	18	4.6	3 to 5 years	110	29.7
			More than 5 years	196	52.8

3.3 Convergent Validity

For the current research, the value used to test the convergent validity is the average variance extracted (AVE). When the value of AVE is greater than 0.5 then the variable shows good construct validity. The following table 2 shows that the variables (top management support, project mission, personnel, project schedule/ plan, and construction project development) have got an acceptable AVE values, which were ranged between 0.544 and 0.755. The factor loading test was used in the study to confirm the validity of the research data. The accepted value for the factor loading is to be greater than 0.5. The following table 2 reveals that the variables (top management support, project mission, personnel, project schedule/ plan, and construction project development) items' have got acceptable factor loading values, which were ranged between 0.636 and 0.907.

Table: 2 Measurement model evaluation

Factors	Items	Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Construction project development	CBD1	0.798	0.928	0.941	0.666
	CBD2	0.841			
	CBD3	0.860			
	CBD4	0.763			
	CBD5	0.845			
	CBD6	0.839			
	CBD7	0.781			
	CBD8	0.797			
Personnel	PL1	0.768	0.697	0.820	0.544
	PL2	0.869			
	PL3	0.787			
	PL4	0.660			
Project mission	PM1	0.856	0.898	0.922	0.665
	PM2	0.820			
	PM3	0.772			
	PM4	0.872			
	PM5	0.907			
	PM6	0.636			
Project schedule/ plan	PS1	0.884	0.892	0.925	0.755
	PS2	0.864			
	PS3	0.834			
	PS4	0.894			
Top management support	TMS1	0.813	0.816	0.878	0.643
	TMS2	0.781			
	TMS3	0.796			
	TMS4	0.817			

CR= Composite Reliability; AVE= Average Variance Extracted

3.4 Description of Validity

Discriminant validity (or divergent validity) proves that constructs that should not have any factual relationship do not. Discriminant validity would ensure that, in the research, factors that do not overlap do not in fact overlap. A satisfactory discriminant validity study demonstrates that a concept test is not substantially associated with other tests measuring conceptually distinct ideas. According to the following table 3, the variables have shown perfect and positive correlation because all the variables obtained values of $r =$ greater than 0.4. The values found for the variables (top management support, project mission, personnel, project schedule/ plan, and construction project development) were in the range of 0.749 and 0.861.

Table: 3 Results of discriminant validity by Fornell-Larcker criterion

	TMS	PM	PL	PS	CPD
Top management support	0.861				
Project mission	0.175	0.749			
Personnel	0.273	0.271	0.797		
Project schedule/ plan	0.165	0.466	0.183	0.837	
Construction project development	0.392	0.422	0.242	0.165	0.826

Finally, the measurement model of the study is presented in figure 2 below. Based on the above discussion, it can be confirmed that the measurement is valid for further analysis as suggested by by Hair et al. (2019)

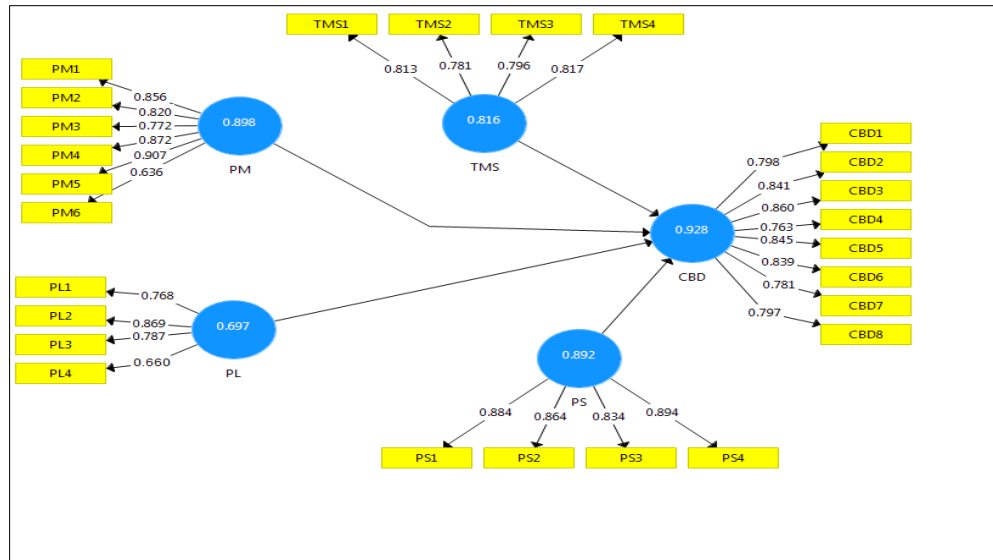


Figure: 2 Measurement model of the research

Figure 2 shows the structural model after bootstrapping. In this research, for best result, the sample was increased to 5,000 as suggested in past literatures (e.g., Hair et al., 2017).

3.5 Hypotheses Testing

All the hypotheses of this research have been tested through the application of PLS-SEM. The statistical result indicates a good fit. The complete model has a total of nine hypotheses. For the assessment of the structural relationships among the identified variables for this research, the t-value is considered. According to Hair et al. (2017) the t-value should be 1.96 and above (one-tailed) to be considered as statistically significant.

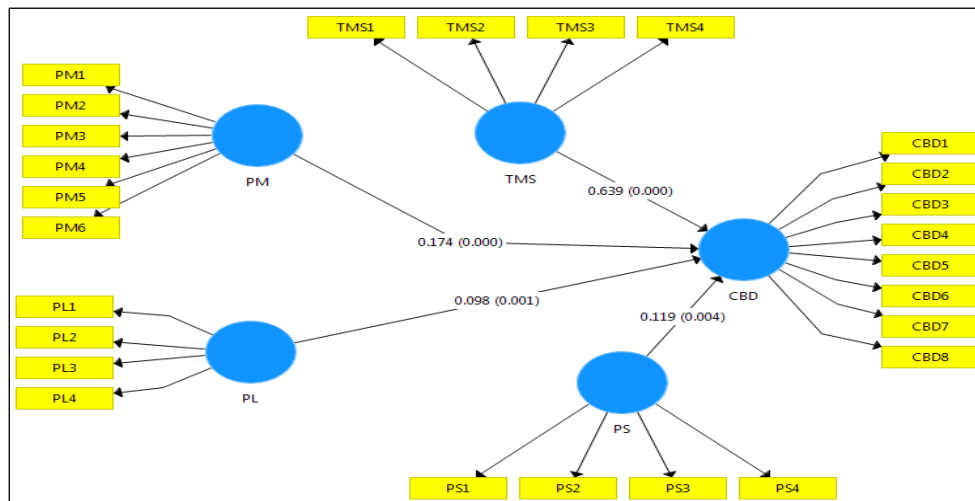


Figure: 3 Structural model of the research

3.5.1 Hypothesis Testing (Direct effect)

This section presents the result of hypotheses testing for direct effect. The results are presented in table 4 and explained in the following conclusions.

Table: 4 Summary of the direct effect

	Beta	SD	T	P Values
PL -> CPD	0.098	0.030	3.236	0.001
PM -> CPD	0.174	0.027	6.537	0.000

PS -> CPD	0.119	0.041	2.896	0.004
TMS -> CPD	0.639	0.034	18.822	0.000

Where: PL; personnel, PM; project mission, PS; project schedule/ plan, TMS; top management support, and CPD; construction project development

According to results showed in the above table 4, the following conclusions were drawn:

- There is a positive and significant relationship between personnel and construction project development in the UAE with beta = 0.098, t = 3.236, and p = 0.001.
- There is a positive and significant relationship between project mission and construction project development in the UAE with beta = 0.174, t = 6.537, and p = 0.000.
- There is a positive and significant relationship between project schedule/ plan and construction project development in the UAE with beta = 0.119, t = 2.896, and p = 0.004.
- There is a positive and significant relationship between top management support and construction project development in the UAE with beta = 0.639, t = 18.822, and p = 0.000.

4. Empirical Results

The current research has applied the direct effect test and it found that there is a positive and significant relationship between personnel and construction project development in the UAE with beta = 0.098, t = 3.236, and p = 0.001. There is a positive and significant relationship between project mission and construction project development in the UAE with beta = 0.174, t = 6.537, and p = 0.000. There is a positive and significant relationship between project schedule/ plan and construction project development in the UAE with beta = 0.119, t = 2.896, and p = 0.004. Finally, there is a positive and significant relationship between top management support and construction project development in the UAE with beta = 0.639, t = 18.822, and p = 0.000. Based on the finding of this study project personnel, project mission, project plan, and top management support have significant and positive impact on the construction project development. This result indicates to the role of paying much attention on the improvement of project personnel, project mission, project plan, and top management support, which will lead to improve the construction project development. These results are supported by the results in the previous studies, where Merwe (2015) attributes project development into two categories: macro and micro. The macro view of project development considers the project's mission; if the project mission is realized, the project is successful. On the other hand, from the micro perspective of a project, development is measured at the component level, which takes into consideration the project personnel improvement.

According to Ghasabeh and Chabok (2017), 43% of project professionals surveyed believed that project development is synonymous with projected top management support, while 46% indicated that the two are diametrically opposed. Additionally, Omer and Haleema (2017) found that 48% of project professionals surveyed believed that project development is synonymous with initial projected plan, while 52% indicated that the two are diametrically opposed. It can be noted that the term "project development" is still hard for professionals to understand. According to Iram et al. (2017), in previous years, the straightforward definition of project development was based solely on the implementation phase of the project lifecycle. However, definitions of project development are required from the start to the end of the project and product life cycles these days. Merwe (2015) argued that good schedule and cost performance mean little if the end product is substandard. According to Gomesa et al. (2016), project management and its techniques are only a subset of the project's broader context.

Independent of the project management process, projects can succeed or fail. When evaluating a project's development within an organization, it is necessary to consider how the project contributes to the organization's strategic objectives; it cannot be limited to the efficiency of the project management processes used (Iram et al. 2017). This assertion has been corroborated by additional researchers. According to Osorio et al. (2016), projects are vehicles for implementing strategies, and the objectives of a project must be directly related to the organization's strategic objectives. And Banihashemi et al. have made a strong case for it. (2017) The majority of projects are integrated into their organizations' strategic management and must be evaluated based on their impact on the business's results. According to Srimathi et al. (2017), project development is a complex and frequently illusive construct, but it is critical for effective project implementation. A review of the literature on project development reveals that development is far more complicated than simply meeting cost, schedule, and performance specifications. Today, we know that figuring out whether a project worked or not is a much more complicated process. Al-Ageel and Alzobaee (2016), a project manager's leadership style, communication, collaboration, and the cohesiveness of a project team (Wang et al., 2016), are all associated with project success, particularly for high-complexity projects in manufacturing, construction, industry, and infrastructure. In terms of project management (PM) standards and practices, the majority of studies failed to establish a link

between a project manager's performance against widely used PM standards and the perceived effectiveness of workplace performance (Omer, Haleema, 2017).

However, a more recent study of Project Management Institute (PMI) members discovered a correlation between PMP adoption and project success. The comparison of "low" and "high" performance project groups revealed significant differences in communication, human resources, cost, scope, risk, and quality management areas in favour of "high" project development (Banihashemi et al., 2017). The findings of the preceding studies demonstrate that two distinct groups of development factors can be distinguished, dating all the way back to the task and relational orientations of leadership theories. The framework for the University of Michigan's school behavior studies defined two distinct types of leadership behaviors: employee orientation and production orientation. According to the Michigan researchers, these styles represent diametrically opposed sets of leadership behaviors (Merwe, 2015). In construction projects, technical planning and the controlling expertise of contractors (Al-Ageel and Alzobae, 2016), as well as the commitment, coordination, and competence of project participants (Wang et al., 2016), can all contribute to the development of the project. Additionally, issues of behavioral management, such as commitment, participation, and goal commitment, can have a significant positive correlation with participant satisfaction, whereas a high level of team and task conflict detracts from overall satisfaction (Omer, Haleema, 2017).

5. Conclusion and Policy Implication

This research adds to the growing body of information about management in general and project management in particular. Previous research has paid minimal attention to (top management support, project mission, staff, and project schedule / plan) in the context of important development elements in the development of construction projects. The current study confirmed four important development variables and investigated their influence on the development of building projects. The findings have significant consequences for senior executives, project managers, and practitioners. According to the current findings, top management assistance in terms of resources, structural arrangements, communication, knowledge, and authority is a beneficial behaviour for increasing the chance of project success. The findings of this quantitative study give practitioners the chance to design suitable policies, methods, and processes to assure top management support throughout the project's execution. The study's findings will also assist practitioners in leading projects with greater excitement, with top management taking their position seriously to ensure project managers have the required support.

6. Limitations and Future Research

This study, like previous studies, has significant limitations that should be addressed in future research. First, because the study employs cross-sectional data, a definitive cause-and-effect link cannot be derived from the findings. Data gathered at various times in time can only be utilised to determine causation (Wright et al. 2005). As a result, a longitudinal research in the future would be fascinating to see how the linkages between (top management support, project mission, personnel, and project schedule / plan) and the development of construction projects change over time. The study only looks at the impact of crucial development variables on construction project development, but this approach might be used to develop new products, manage processes, and improve project and organisational performance. Because this study used a direct impact model, future research should look at estimating hierarchical models with formative and reflective characteristics using PLS path modelling and a mediating variable like overall quality management or organisational culture. Through qualitative and quantitative investigations, further study should be done to find new characteristics of top management support and project success. According to the obtained results and the point of view of the researcher, the following is recommended: Once all of the details for starting the project have been determined, the manager must assemble a skilled project team. Assign people to each assignment who have the proper abilities, skills, and personalities. Each employee should be aware of what is expected of them and the deliverables that will be required at the conclusion of the project.

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