Validity and Reliability of the TQM Research Model for the Success of Strategic Planning of the Jordanian IT Companies: A Pilot Study

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Abstract: - This study examines the role of personal and technological factors in the adoption of Computer-Assisted Audit Techniques (CAATs) in Jordan, with a particular focus on the moderating influence of top management support. The research aims to assess how factors such as perceived ease of use, perceived usefulness, organizational characteristics, individual characteristics, task fit, and system integration influence the effectiveness of financial processes in audit practices. A quantitative research design was employed, utilizing a structured questionnaire distributed among IT professionals in Jordan. The questionnaire, designed based on prior literature, used a five-point Likert scale to measure key variables. A pilot study was conducted to ensure the reliability and validity of the research instrument. The data were analyzed using Cronbach's Alpha for reliability testing and Pearson Bivariate Correlation to assess the validity of the research model. The findings indicate that perceived ease of use, system integration, and organizational characteristics significantly enhance the effectiveness of financial processes, while individual characteristics have a weaker impact. Additionally, top management support moderates the relationship between technological factors and CAAT adoption, strengthening their influence on financial processes. The study contributes to the existing body of knowledge by integrating personal and technological factors into the CAATs adoption framework and highlighting the role of top management in audit automation. Future research should expand the sample size, incorporate cross-industry comparisons, and explore longitudinal effects to enhance the generalizability of findings. Policymakers and organizations should consider these insights when formulating strategies to promote technology-driven auditing practices.

Key-Words: - Leadership Commitment, Continual Improvement, Human Resource Focus, Customer Focus, Communication, The Success of Strategic Planning.

1 Introduction

An organization's strategy is a way to depict the long-term direction and scope of its operations in an environment that is dynamic, globalized, volatile, and unpredictable. This is accomplished via the configuration of the firm's talents and operations. [1] state that this is done in order to develop a competitive advantage and satisfy the expectations of the organization's stakeholders. This is done in order to fulfill the expectations of the stakeholders. In order to accomplish the vision and long-term strategic goals of an organization, a strategy that is rational, logical, and systematic is utilized in strategic management, [1]. It entails analyzing both the internal and external environments of an organization in order to gain an understanding of the strategic position of the organization, defining a clear vision, establishing attainable long-term goals and objectives, developing strategies, tactics, policies, and action plans to achieve these goals and objectives, allocating the necessary resources to put these action plans into action, and finally demonstrating the effectiveness of the organization's strategic position, [2].

Because of strategic management, managers have the ability to improve and use their resources in order to work toward the achievement of a desired and predetermined future. The practice of strategic management helps managers become more

aware of possibilities and risks from the outside world, as well as the advantages and disadvantages of their own organizations. In addition to this, it enhances managers' awareness of the positions and tactics of rivals, promotes communication between managers and workers, increases employees' productivity, and strengthens an organization's competitiveness, profitability, and market position. According to [3], the process of establishing a strategy, putting it into action, and assessing its efficacy is the process known as strategic management, [3].

The significance of strategic planning in today's fast-paced and competitive technology business environment cannot be overstated. The idea of planning as a framework for making decisions is applicable to strategic planning more than it is to any other kind of planning. In order to make decisions on technology in a rational manner, one needs a context that defines the goals that are to be achieved as well as the criteria that will be used for decision-making. The strategic plan acts as a tool for adjusting to an environment that is always shifting and evolving. In the end, an organization may be considered strategically oriented if the acts it does are consistent with the reality of the surrounding environment. It is expected that the organization would gain a competitive advantage as a result of the strategic plan, which will make it more knowledgeable and better structured than its rivals, [4].

Total quality management, often known as TQM, is an approach to management that aims to ensure the long-term success of a product and the happiness of those who experience that success. TQM encourages collaboration amongst all members of an organization, with the goal of enhancing not just the procedures but also the products, services, and atmosphere at their respective places of employment. Therefore, in the context of the scientific community, total quality management is described as a procedure that focuses on the customer. The continuous improvement of the business is the primary focus of the total quality management approach. TQM guarantees that all aspects of an industry collaborate toward a common goal in order to improve the overall quality of its offerings (both products and services), [5]. Generally speaking, the major focus of comprehensive quality management is on the enhancement of the production process as well as the process of delivering services. The performance, which acts as a governing element for the progress of the organization, is the focal point for the whole of the process. On the expansion of the organization

and its staff, TQM has the potential to have a significant and favorable effect. If businesses focus all of their employees on quality management and continuous improvement, they will be able to construct and maintain cultural norms that will result in long-term success for both their customers and the organization. TQM makes it simpler to identify skill shortages in employees and then offer them the required education, training, or mentoring to address those gaps since it places such a strong focus on quality, [6].

There are a lot of aspects of strategic planning that differentiate it from other kinds of planning and highlight the one-of-a-kind features that it has. The horizontal nature of strategic planning lies in the fact that it crosses across all of an organization's many departments. As a consequence of this, it needs collaboration across organizational boundaries and calls for more open cooperation across structure and function than other forms of planning do. It is essential to coordinate efforts while developing the strategy as well as when putting it into action. Strategic planning is relative in its direction, [7].

Strategic planning is only relevant in the sense that it may be conceptualized in relation to the external environment and the many other participants in that environment. In an industry that has historically been focused on its products, there is a restricted relationship with the external environment. When it comes to an industry that is increasingly focused on providing services, such as the technology sector, the external environment is the reason why strategic planning even exists. Therefore, the inward focus that is typical of more internal strategies for planning needs to be deemphasized, [8].

For example, leadership has a number of responsibilities to play in the success of successful strategic planning; the commitments of leaders to their organization, vision, and followers have historically been related to a variety of various significant outcomes. The more committed the leader was to the organization's strategy, the more committed their followers were to the organization's plan as well, and the happier the follower was in his or her role to the plan, [9]. In addition, the greater a leader's dedication to the vision of the organization, the more effectively they were able to communicate that vision to followers, which in turn increased the likelihood that followers would suggest improvements and voice concerns that would benefit the organization while also performing admirably in their assigned roles. In addition, the more committed leaders were to their followers, the

more committed followers were to the leader, better the performance and the greater the likelihood that the employee would go above and beyond what was required of them in their work, [10]. The concept of continuous improvement has also been linked to the practice of strategic planning. Continuous improvement, which emphasizes making little, incremental changes to processes, not only improves efficiency but also increases the market value of products and services by doing so, [11].

In order to guarantee the correctness and legitimacy of results, research instruments' validity and reliability are essential. A measurement tool that has been well verified supports the inferences made from empirical data. In this research, construct validity is evaluated using Pearson Correlation, while internal consistency reliability is assessed using Cronbach's Alpha. Before the survey instrument is utilized in larger research, these statistical checks make sure it is valid and reliable for assessing the effectiveness of strategic planning and its associated elements, [12].

Because measurement errors may be introduced by subjective views and organizational dynamics, this validation procedure is especially crucial in the context of strategic planning research. The scientific rigor of the research is improved by making sure the instrument appropriately captures dimensions like communication, leadership commitment, continuous improvement, human resource focus, and customer focus, [13]. Thus, by confirming the measurement tool's resilience, this study adds to the body of knowledge and makes it suitable for further investigation in Jordanian IT businesses and beyond, [6].

This research investigates the relationship between Leadership Commitment, Continual Improvement, Human Resource Focus, Customer Focus, and Communication with the Success of Strategic Planning in Jordanian IT companies.

2 Literature Review

2.1 Leadership Commitment
Leadership Commitment is defined as the direct involvement of an organization's highest-level executives in a particular and crucial component or initiative, [14].

It's possible that an organization is operating under a misapprehension if it thinks that the conventional techniques of quality control and the manner they've traditionally been implemented would address the quality issues they're facing. It is not possible to increase quality by increasing the number of inspectors employed, tightening up standards, or forming teams dedicated to correction, repair, and rework. The responsibility for quality has traditionally been seen as the responsibility of a quality (assurance or control) department. However, in many businesses, it is still not yet understood that many quality concerns originate in the commercial, engineering, service, or administrative divisions of the organization, [15].

There is far more to total quality management than just making the manufacturer responsible for the identification of faults rather than the consumer. If one wants to reap the benefits of doing so, one will need to first acknowledge the need to take this holistic approach before beginning to put it into practice. Because of the way businesses operate in today's environment, managers need to engage in strategic planning even just to keep their current market share, let alone grow it. It has been discovered that quality issues may severely erode a company's profits owing to the expense of correcting poor work both during the contract time and after it has been completed. This is the case in many different businesses. We are aware that low-cost operations have been the norm for the last decade or more, but customers continue to put a larger value on quality than they do on loyalty to suppliers, and the price is not always the primary element that determines which product or service a consumer decides to purchase, [16]. Despite the fact that quality is still of the utmost significance in the majority of industrial, service, hospitality, and many other businesses, costs in many different areas have been reduced as a result of improvements and changes in operations, including location. A strategy that aims to improve an organization's entire competitiveness, as well as its efficiency and flexibility, is known as the Total Quality Management (TQM) technique. It is a method for planning, organizing, and obtaining knowledge of each activity, and it is dependent on the individual at each level. In its most fundamental form, it is a method. In order for an organization to be genuinely successful, all of its components need to cooperate with one another in the pursuit of the same objectives, keeping in mind that every individual and every action has the potential to impact and be affected by others, [17].

2.2 Continual Improvement
Continual Improvement is a dynamic process that evaluates those common concepts of what constitutes effective online teaching and learning. It is vital for ensuring quality, [18].

The phrase continuous improvement is one that is often used across the majority of different companies as well as the public sector. It is possible for this phrase to lose all of its significance if it is not connected to the corporate strategy if it does not have a defined structure if it does not have a preferred approach if it does not have a methodology, and if it does not have an accompanying tool kit. The selection of Leadership and the top-down cascade of objectives, particularly those associated with the achievement of on-quality, on-time, and on-cost delivery of products and services, was made in order to foster customer trust and generate efficiency improvements. This is, without a doubt, the point at which everything begins, [19]. It is unfortunate that the senior management of many companies rushed right to the instruction manual in order to implement approaches such as Lean and Six Sigma during this phase. However, they do not first establish the vitally crucial managerial infrastructure that is needed for stage 2. It is going to be quite important to have good program and system management, as well as communication with persons both within and outside the organization about what the chosen method and even the word brand mean. The third step needs careful selection of a pragmatic, evidence-based improvement approach that, ideally, will deliver speedy results utilizing tried and true methods that are backed by fact and data-based, hands-on tools and techniques that are to be advised. If the motivation for this decision is the need to enhance delivery in terms of quality, time, and cost, then strategies that cut down on wasted time and limit the amount of variation in order to raise quality will be suitable, [20].

In addition, because these strategies cut costs as well, covert cost-cutting programs don't need to be implemented. Covert cost-cutting programs frequently have the unintended consequence of destroying an organization's capability and rendering it incapable of operating effectively. This is analogous to visiting a physician for assistance in losing weight, only to have the physician amputate your left arm. Lean and Six Sigma are two methodologies that, when combined, have the potential to provide an ideal ready-made solution for CI implementation. As a result of the fact that Lean strategies are intended to remove time that does not contribute to the creation of value, and Six Sigma strategies are intended to minimize variation, a combination of the two might result in the so-called Lean Six Sigma or even Lean Sigma, [21]. It is necessary to have a fact-based improvement technique with a closed loop in order to go along

with the overall strategy. The standard Six Sigma approach consists of five steps known as DMAIC: define, measure, analyze, improve, and control. This may be used to offer this. People who are educated, experienced, and living in the organization rather than being a members of an independent improvement task force of some type are the competent improvers who make up the fourth level of the hierarchy. Not all of us are naturally born with the ability to make improvements in a way that is both structured and effective, and just as we need training and development to become engineers, chemists, dentists, or lawyers, we need training and development to become improvers, regardless of whether we are engineers, chemists, dentists, or lawyers, [22].

2.3 Human Resource Focus

The Human Resources Focus is a strategic strategy that aims to bring out the maximum potential of individuals and organizations by allowing people to function efficiently and by leading people within an organization in a more effective manner, [23].

Since the turn of the century, developments in technology and variations in demand for products and services around the globe have contributed to the creation of relative instability, cyclical hiring, and downsizing in many different types of organizations. However, in light of recent events, it has come to be acknowledged that one of the fundamental keys to better and sustained organizational performance is in the manner in which people are managed and developed while they are on the job. This is evident in common phrases such as people are our most important asset or people make the difference, which both emphasize the importance of individuals. As a matter of fact, such axioms are now so prevalent in the media and on business public relations materials that the veracity and honesty of such declarations have started to come into doubt. According to [24], there is an overwhelming amount of evidence that organizations that are successful do much more than just pay lip service to the idea that their employees are their most important resource, [24].

Knowledge management is a key strategic activity, especially if the tacit knowledge that exists within an organization is to be properly leveraged for the benefit of the company. This is consistent with the recognition that intellectual capital accounts for a significant portion of the value of any company. In order to integrate their HR policies into the entire company strategy, organizations at the forefront of their sector adhere to a standard method or plan. This is something that is crystal clear. It is

often the responsibility of the HR director to first determine the essential elements that comprise the human resources strategy. These elements include skills, recruiting and selection, health and safety, assessment, employee benefits, salary, and training, among others. Next, the director of human resources is responsible for providing frequent updates to the board of directors. The HR plan, which normally covers a period of three years, is in line with the broader business goals and is an essential component of the company's overall strategy. For example, if one of the objectives of the company is to expand its presence in a particular site, the HR strategy will make certain that adequate additional people, together with the needed skills profile and support with training, are made accessible. The strategy for human resources is being amended as part of the larger process of strategic planning, [25].

2.4 Customer Focus

The direction of an organization toward meeting the requirements of its customers is referred to as customer focus. When a firm has a customer focus, it is often a significant factor that contributes to the overall success of the organization. This kind of focus requires the company to make certain that all aspects of the business prioritize the happiness of its customers. The maintenance of an efficient customer relations and service program is often included in the definition of having a customer focus, [26].

Knowing your target market's mentality throughout and out is the single most crucial success you need in order to be successful in any sector. It's possible that sticking to one basic guideline for all of the clients may be challenging. There will be customers who are kind, eager to listen, and helpful, but there will also be customers who are unreasonable. It's possible that the organization will decide to turn away clients like that. However, this one consumer might prevent ten other potential clients who are interested in the services from signing up, [27]. As a result, the organization is unable to turn away clients in this situation. At the same time, consumers like these might be a source of annoyance for the personnel who work in customer interaction. Because of this, dealing with these types of consumers requires sensitivity. Even if it helps you win a bid or a contract, the personnel who interact with customers shouldn't provide them with false information. They must avoid leading the clients to have unrealistic expectations. If they stick to these fundamentals, their clients won't be subjected to any unpleasant shocks, [28].

It is preferable to be honest with a client, even if it means losing their business, then it is to get their business by making false promises. In order to cut down on potential issues in a service organization, this point has to be made very apparent. The time schedule would have been followed, but when the service contract was obtained, some issues would have been discovered, which would have caused a delay in the delivery timetable. There are two approaches that may be used to deal with this unanticipated circumstance. One strategy is to maintain composure and, when the client eventually arrives, explain to him the reasons for the delay, [29]. Despite the fact that the customer may be willing to accept the reasons for the delay and that the customer contacted employees may be telling the absolute truth in their statement, the customer will not excuse the customer contacting employees because they did not tell him in advance about the reasons for the delay, [27].

2.5 Communication

The marketing mix for mobile commerce includes communication as a tool. This document includes judgments on the messages that are required, as well as the usage of communication channels and materials in a fair manner. Furthermore, this instrument will be responsible for defining the budgets for the various communicational setups, [30].

When the message that is received is comprehended, communication has taken place. Nevertheless, the act of communication does not automatically constitute successful communication. When communication is effective, the intended message is received, processed, and then put into action in the way that was intended. The sender is the one who is responsible for making sure there is clear and concise communication. For illustration's sake, let's say a manager requests her team members to remain 15 minutes beyond leaving time for the next week in order to guarantee that a crucial order is sent out on time. The message is delivered to each member of the team, who then confirms that they comprehend its contents, [31]. On the other hand, two members of the squad have already decided that they will not cooperate. This is an example of communication that is not successful. The two workers who did not comply with the directive were aware of the message but chose not to act in accordance with it. In this particular instance, the manager was not successful in gaining acceptance of the message. A greater level of communication is achieved via effective communication. It requires not just receiving but also comprehending and

acting upon the message. This indicates that for managers to successfully facilitate good communication, they may need to use skills such as persuasion, incentive, monitoring, and leadership, [32].

2.6 The Success of the Strategic Planning

The process of continuously producing the direction that is generated from strategic thinking is referred to as the strategic planning process. It is often accomplished by the expressive participation of a variety of organizational aspects, including tactic integration, financial, logistical, operations, and human resources management processes, as well as information technology tools, [33].

Total Quality Management (TQM) is a management system that consists of fundamental beliefs, processes, and tools with the goal of satisfying both internal and external customers with the least number of resources feasible. TQM was developed by [32] in the 1960s. The goal of Total Quality Management, often known as TQM, is to combine all of a customer's departments, including marketing, finance, design, engineering, manufacturing, and customer service so that the organization can better focus on satisfying the requirements of its clients and achieving its goals. According to TQM, an organization is nothing more than a collection of processes. It claims that firms should try to continuously enhance these processes by combining the knowledge and experiences of their employees. TQM's primary goal is to ensure that tasks are completed correctly and successfully from the outset, [5]. TQM is a changeable and adaptive methodology that has no limits. This management strategy was first used in manufacturing processes, but it has now been expanded to span more domains. Its only application dates back many years to this particular industry. TQM will henceforth be referred to as a management technique that is applicable to all types of services, including those in the service industry (health and safety), the industrial sector, and the public sector. There is a progression of evolutionary units, with several industries developing their own variants of the same ancestor, [31].

2.7 The Success of Strategic Planning

With links to the literature on TQM principles, the current study will examine the relationships between Leadership Commitment, Continual Improvement, Human resource focus, Customer focus, and Communication with the Success of Strategic Planning. Figure 1 illustrates the research framework of the current study.
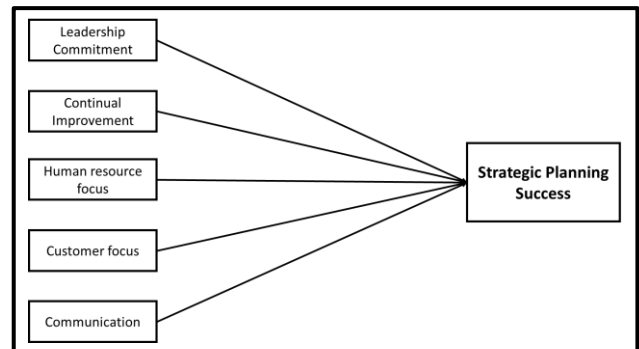

Fig. 1: Research Framework

3 Research Methodology

In the course of this research, a deliberate quantitative approach was adopted, employing structured questionnaires as the primary means of data collection. The focus was on employees within the Information Technology (IT) sector in Jordan, with a total of 30 questionnaires distributed to glean insights.

SPSS is a data management and analysis program designed to do statistical data analysis, including descriptive statistics such as plots, frequencies, charts, and lists, as well as sophisticated inferential and multivariate statistical procedures like analysis of variance (ANOVA), factor analysis, cluster analysis, and categorical data analysis.

The structured questionnaire aimed at eliciting specific and measurable insights, contributing to a robust dataset for rigorous statistical scrutiny, [34]. The chosen participant pool, comprising IT professionals in Jordan, was strategically selected for its relevance to the industry. Through the distribution of questionnaires, the research aimed to capture a nuanced understanding of prevailing sentiments, perspectives, and experiences within the IT workforce, [35].

In adhering to established protocols, the researcher ensured the confidentiality and integrity of the gathered information, emphasizing methodological rigor and ethical considerations throughout the data collection process. In essence, this research, rooted in a quantitative paradigm, utilizes structured questionnaires and a targeted participant pool to provide a comprehensive exploration of key variables in the IT business landscape in Jordan. The approach not only sheds light on current trends but also lays the groundwork for informed insights and recommendations in the field of Information Technology research.

4 Measurement of Variables

The development of instruments was carefully executed in order to reflect the nature of this study. As such, the questionnaire was designed to include 24 items, and the variables were measured using the five-point Likert scale, with five standing for 'Strongly Agree' and one standing for 'Strongly Disagree', [36]. Furthermore, the validated instruments shown in Table 1 are adopted from related previous studies to measure the variables of this study.

Table 1. Questionnaire Development.

Variable	No. of items	Reference
Leadership Commitment	4	[37]
Continual Improvement	5	[38], [39]
Human resource focus	5	[40]
Customer focus	4	[38]
Communication	5	[41], [42]
The success of the Strategic Planning	6	[40]

5 Results

The pilot study is always conducted before the data collection. [43] assure the usefulness of carrying out a pilot study before collecting the data. It provides a great help by giving the researcher an index to correct any inadequacies in the research instrument before the data collection, [43], [44]. In this study, first, the researcher demonstrated the descriptive statistics of the respondents (respondent profile), followed by the reliability and validity tests for the pilot study.

5.1 Reliability of the Scale

The reliability of the instrument tested in this study as a prior literature review was the source of the questions. At the same time, Cronbach alpha was conducted on a sample of 30 participants in order to make sure that the instrument is valid and reliable. [45] highlighted that "a cut-off point of 0.6 is required during the pilot test level to consider the research instrument is reliable with a valid internal consistency, on which any value below 0.6 is considered poor and unacceptable, while the value of Cronbach Alpha above 0.6 considered merely acceptable, above 0.7 is good, above 0.8 excellent, and above 0.9 considered perfect", [46]. Table 2 illustrates the results of the reliability of the scale of the current study.

Table 2. Results of Scale Reliability.

Reliability Statistics		
Constructs	Cronbach's Alpha	N of Items
LC	0.963	4
CI	0.868	5
HRF	0.929	5
CF	0.812	4
CO	0.890	5
SP	0.944	6

5.2 Validity of the Research Model

For the purpose of doing the testing of the research, The success of measures used in the process of prediction or estimate is shown by criterion-related validity. The researcher used the Pearson Bivariate Correlation model in SPSS 28.0 to ensure the validity of the research model, [47]. The Pearson correlation coefficient is a standardized measure of covariance. Covariance coefficients retain information about the absolute scale ranges so that the strength of association for scales of different possible values cannot be compared directly. Researchers find the correlation coefficient useful because they can compare two correlations without regard for the amount of variance exhibited by each variable separately, [48]. According to [49], the Sig. Value, which is less than 0.05 in the correlation test, means there is a relationship between the two variables and statistically shows a significant unique contribution to the equation, [49]. Table 3 illustrates the value of the Pearson Bivariate Correlation as well as the significance of the correlation between the variables, both of which emphasize the validity of the research model used in the present study.

Table 3. Pearson Bivariate Correlation Results.

Correlations		
		SP
LC	Pearson Correlation	.576**
	Sig. (2-tailed)	0.001
	N	30
CI	Pearson Correlation	.569**
	Sig. (2-tailed)	0.001
	N	30
HRF	Pearson Correlation	.394*
	Sig. (2-tailed)	0.031
	N	30
CF	Pearson Correlation	.615**
	Sig. (2-tailed)	0.000
	N	30
CO	Pearson Correlation	.498**
	Sig. (2-tailed)	0.005
	N	30
*. Correlation is significant at the 0.05 level (2-tailed).		
**. Correlation is significant at the 0.01 level (2-tailed). Dependent Variable: SP		

6 Discussion

The aim of this study is to propose a conceptual framework of The Success of the Strategic Planning among Jordanian IT companies. The framework consists of Leadership Commitment, Continual Improvement, Human resource focus, Customer focus, and Communication as independent variables, with The Success of Strategic Planning as a Dependent Variable. In addition, the second objective of this study is to evaluate the research model in terms of its validity and reliability. SPSS was used to do the statistical analysis of the data, and the results showed that all of the constructs in this study had attained a satisfactory level of scale reliability when measured by Cronbach Alpha scores. A significant level of validity was also shown by the findings of the Pearson correlation analysis. These results were similar to the previous studies.

[50] explored the significant role that strategic planning plays as a key dimension in effectively implementing total quality management (TQM) and confirms that strategic planning is also quite vital. Empirical findings suggest that, out of the fourteen TQM characteristics that have been defined to describe the TQM framework, strategic planning is one of the most important factors for effectively implementing TQM. The findings were shown to be accurate and valid for the business of additional study on the influence of strategic planning while applying TQM within an organizational environment, [50].

The purpose of the research conducted by [51] was to identify, rank, and analyze the factors affecting TQM implementation in a construction company so that industrial practitioners avoid poor-quality products. It was determined that there was a link between three different groups of organizations. The Client/Consultant correlation was found to have the highest Spearman correlation, which is classed as a very strong correlation. Regarding the quality management variables, the correlation between the Contractor and the Consultant was found to be rather high. These showed that client and consultant perspectives on quality management are more comparable to one another than those of client and contractor or consultant and contractor, [51].

An examination of the design and implementation of Total Quality Management (TQM) in primary and secondary school settings in Cyprus is the objective of the research conducted by [52]. Additionally, the study aims to provide a reference point for the collection of all partial results about TQM implementation in Cypriot education. According to the study's findings, the strategic planning, execution, and assessment of Total Quality Management (TQM) in Cyprus' educational system have a direct correlation to each of the six leadership dimensions (strategic planning, human resources management, processes, partnerships, and finally performance metrics) that are responsible for determining the level of quality, [52].

The purpose of the research conducted by [53] was to provide an empirical assessment and strategic planning for the purpose of analyzing the impact that total quality management (TQM) methods have on small and medium-sized businesses (SMEs) and the effectiveness of these strategies for achieving business excellence. This study contributes to the development of a model for evaluating the weighted components of total quality management in small and medium-sized enterprises (SMEs). When it comes to small and medium-sized businesses (SMEs), it has been observed that the characteristic of knowledge of client demand and the capability to fulfill it is of the greatest relevance. On the other hand, the ability to minimize waste and collaborate with suppliers is of the least value. In order to improve both environmental and operational performance, validation research makes it possible to channel Total Quality Management operations, [53].

Numerous studies have emphasized the significance of the concepts of validity and reliability, which are essential to guaranteeing the quality of research instruments. In the social sciences, for example, Cronbach's Alpha is a commonly used measure of internal consistency; a value greater than 0.7 is often seen as appropriate for study. The results of this research are consistent with those of other studies, in which comparable instruments measuring the effectiveness of strategic planning work show comparable levels of reliability, [50], [51], [52], [53]. These studies used a variety of techniques to validate their instruments, including construct validity, criterion-related validity, and content validity. These techniques were essential in proving the reliability and correctness of their results.

As an example, [50] highlighted the significance of strategic planning for the effective application of Total Quality Management (TQM) and confirmed the instrument's high reliability across a range of TQM characteristics. In a similar vein, [51] discovered robust associations between organizational elements influencing TQM, emphasizing the importance of strategic planning and proving that reliable instruments can capture intricate organizational structures.

The findings of this pilot study closely matched those of previous studies, demonstrating the validity and reliability of the instrument for evaluating the effectiveness of strategic planning in the context of Jordanian IT firms. Therefore, the results of the pilot test provide reason to believe that this instrument will be used more widely in further research.

7 Conclusion

7.1 Research Implications

Research implications suggest that future studies should expand the sample size, incorporate diverse industry perspectives, conduct longitudinal studies, and utilize advanced statistical techniques to provide a more comprehensive understanding of strategic planning success. Additionally, considering cross-cultural factors can enhance the generalizability of the findings.

Practical implications indicate that IT companies in Jordan should prioritize leadership commitment, continual improvement initiatives, human resource development, customer focus, and effective communication to achieve successful strategic planning. These strategies can lead to improved organizational performance and competitiveness. Policymakers are encouraged to develop targeted strategies that support effective strategic planning within the IT sector.

Given the emphasis on reliability, future study needs to give special attention to in-depth explanations of the validation techniques used, such as the comparison of reliability coefficients (such as Cronbach's Alpha) among various studies. With this method, researchers may expand on previous work and guarantee consistency in the tools used to evaluate the effectiveness of strategic planning. Additionally, a thorough comparison of the findings from this pilot study with those from related studies carried out in other organizational and cultural settings may provide additional light on the instrument's resilience.

7.2 Future Research Recommendations

It is advisable to expand the sample size to at least 350 respondents. A larger sample will enhance the generalizability of the findings and improve the reliability of the results. In addition, ensuring diversity among the respondents by including participants from various industries, organizational sizes, and levels of experience in strategic planning. This will help capture a broader spectrum of perspectives. Moreover, one could consider conducting a longitudinal study to track the success of strategic planning over time, providing insights into how this success of the strategic plans evolves and its stability over time. To strengthen the quantitative research results of the current study, one should also consider using advanced statistical techniques, such as structural equation modeling (SEM) or regression analysis. In addition, it is also recommended to investigate the potential impact of cross-cultural factors on the success of strategic planning, as it can provide insights into the influence of cultural differences.

In addition, acknowledges the limitations of the Jordanian context and aims for a diverse sample that represents a broader spectrum of organizations, both within and outside Jordan, to enhance the external validity of findings. Furthermore, it is recommended, based on the results of the study, for future researchers to discuss potential policy implications of the research findings. If barriers or facilitators to the success of strategic planning are identified, consider how these insights can inform management policies.

Declaration of Generative AI and AI-assisted Technologies in the Writing Process
During the preparation of this work the authors used Grammarly in order to improve the readability and language of the manuscript. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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Conflict of Interest
The authors have no conflicts of interest to declare.