

Strategic Planning and Innovation: A Case Study of Jordan University of Science and Technology

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Abstract

This study aims at studying the impact of strategic planning on innovation of the Jordan University of Science and Technology in Jordan. The population of this paper is the Jordan University of Science and Technology. The study respondents consisted of those who occupy dean, deputy dean and head of scientific department's positions at this university. The researcher made use of the studies of Hill et al., (2013), and Evans (1997) to measure the strategic planning, and adopted the construct of Urbancová (2013) and Ibarra, (1993) in order to measure the dependent variable, which is innovation. A total of 128 questionnaires were distributed, out of which 80 were received back, but only 61 questionnaires were valid for statistical analysis. The major finding of the study is strategic planning has a strong positive impact on the innovation of the researched university.

Keywords: innovation, Jordan, strategic planning

1. Introduction

1.1 Introduction to the Study

Nowadays, most organizations pay great attention to strategic planning because of their belief in the uncertainty and turbulence of the industry, country or national, and wider socioeconomic or macro-environments. Organizations need to be more flexible to meet the factors environments demands and needs by satisfying their internal and external customers' needs and requirements through the formulation and implementation of strategic planning process and innovation that help them gain the right position in the industry.

With the ongoing influence of strategic planning process several of the recent approaches to strategy making have emphasized the role of innovation types and competitive advantage (Hill, et al., 2013: 20). The Higher Education sector leads in Jordan, large and significant role in bringing about comprehensive development at various levels and fields, and achieved higher education in the Jordan during ten years significant progress in (the era of His Majesty King Abdulla II Ibn Al Hussein), in terms of the diversity of academic programs, patterns and learning education that type control quantum, and the expansion higher education institutions and despite the limited human and material resources in Jordan but higher education is in the middle of the priorities of the interests of the state because of its role in upgrading the lives of economic, social and cognitive citizen. (Ministry of Higher Education and Scientific Research, Jordan www.mohe.gov.jo/ar/pages/BriefMohe1.aspx dated: 2/5/2017, time: 9:24 P.M)

1.2 Statement of the Problem

The strategic planning is a feature of the modern era and effective planning helps the organization to the processes of prediction in a deliberate and accurate; prepares the preparation of estimates and prospects on the basis of scientific and accurate; identify the programs and plans to be completed which are in line with the organization.

The practical experience shows that organizations that take the concept of right planning help managers to make better strategic decisions in the future and outperform of work; production and provide service to organizations than that are not committed to planning and this depends on the ability of managers who take this concept and believe it leads to success and continuity and remain in the environment of uncertainty, which are constantly changing.

A study that analyzed the results of (26) previously published studies came to the conclusion that, on average,

strategic planning has a positive impact on company performance (Miller and Cardinal, 1994) also see (Rogers, Miller & Judge, 1999).

This study was launched from a research problem, which is the weakness of the Jordanian organizations' awareness of the importance of strategic planning and the lack of adoption of this concept and its application at all levels of administrative in the organization, which determines their ability to achieve innovation (Al-Salem and Al-Najjar, 2002). Therefore, a study that can seeks to highlight into the impact of strategic planning on innovation at the Jordan University of Science and Technology in Jordan which helps it to support the planning process and its interaction with other variables in it is an urgent one, specifically a research that aims to answer the following questions:

1. What is the level of strategic planning practice at the Jordan University of Science and Technology in Jordan?
2. What is the level of innovation at the Jordan University of Science and Technology in Jordan?
3. What is the impact of strategic planning on the innovation?

1.3 Importance of the Study

This study is one of a kind that undertakes the subject of the strategic planning and innovation in an Arab setting, so it is expected that its findings, recommendations and suggestions will shed light on issues that may not be tackled in similar researches that relate with different cultures.

The study also serve its value lies in the role played by the organization in achieving the great achievements through innovation processes in all administrative, economic, technical, medical and engineering fields according to new working methods, which is a continuous dynamic related to long-term decisions, and this shows the importance of the role of strategic planning in the organization as an encouraging element for innovation or obstacle.

Because of its reach to the saturation point, the higher education sector in Jordan is becoming competitive and consumers are no longer interested in the traditional education services that the sector offers.

The Arabic library is in need of researches that provide a connection between strategic planning and its benefits to guide and help Arab scholars in shaping their future researches and studies.

1.4 Objectives of the Study

This paper sought to achieve the following objectives:

1. To find the levels of strategic planning and innovation at the Jordan University of Science and Technology in Jordan descriptively;
2. To study the impact of strategic planning on the innovation at the Jordan University of Science and Technology in Jordan.

1.5 Related Literature and Studies

1.5.1 Strategic Planning: Concept, Importance, and Components

1.5.1.1 Strategic Planning: Concept

Strategic Planning is an ongoing management process, therefore the organization cannot reach the point of saying that the planning is over but it is planning times and times in light of the achievement of the subsequent steps and based on the feedback that comes in the form of different reactions. This means that the administrative process is an integrated system (Hill, et al., 2013: 21).

Anthony (1965: 25) defines strategic planning as the long-term formulations, strategic plans and policies that define or change the organization's characteristics. These include decisions focused on goal setting, change in goals and resources used to achieve them, and the process of determining policies governing the acquisition and use of these resources.

Steiner (2010: 14) suggested that strategic planning seems as a process that begins with the setting of organizational goals, defines strategies and policies to achieve them, and develops detailed plans to make sure that the strategies are implemented and planning must be continuous and supported by appropriate action when necessary.

Kuehl & Lamping (1990: 232) sees it as a process by which the organization defines its long-term goals and how it will achieve those goals.

Strategic planning defining as a management tools used to help organization do a better jobalso, It can help an

organization focus its vision in response to a changing environment and ensure that member's of the organization is working toward the same aims (Allison & Kaye, 201: 1).

It is a process that serves to guide an organization in an environment of rapid and continuous change. Strategic planning focuses on established purposes and the system's strengths in terms of human and material resources (Norton, 2008: 80).

Bryson (2011: 111) it as a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it.

Immordino et, al. (2016) defined strategic planning as a process used by organizations to define strategy and provide direction regarding future decisions.

Ansoff & McDonnell, (1990: 15), , defined it as a logical mental analysis process to determine the future location of the organization in relation to changes in the external environment, strengths and weaknesses of the organization, and the extent to which the organization adapts to it.

Hunger & Wheelen (1997: 10) defined strategic planning as the development and formation of long-term plans To deal effectively with opportunities and threats in the external environment of the Organization, in the light of the strengths and weaknesses of the Organization's resources in its internal environment, It also includes the definition of the organization's mission and mission, the formulation of achievable goals, the development and formation of strategies and the development of policy directions for the organization.

Al-Salem (2000:17) defined strategic planning as an analytical mental process to choose the future location of the organization according to changes in the external environment, and extent the organization adapts to it. It is a process that does not start from a vacuum. It begins with the process of identifying the organization's mission, analyzing the environment, setting goals, developing strategies, evaluating them and selecting the most suitable ones for the organization.

Al-Arif (2001:8) believes that strategic planning is an insight into the ideal form of the company in the future and achieves this form.

It is also known as a set of mental and analytical activities that represent the development of the organization's mission, goals, plans and policies for the next phase (Al-Qatamin, 1996: 92).

Strategic planning defined as a dynamic process of change and responsiveness whereby the organization can adapt to the change in environmental factors. The tool for linking b/w organization and its environment is a comprehensive plan and the process of analyzing opportunities to determine the direction that the organization wishes to represent. To achieve the main goals of the Organization (Al-Sumaidi, 1999: 42)

Glueck (1978: 3) defined planning as a set of decisions and actions that lead to an effective strategy. Chandler defined it as defining the main long-term goals of the project, selecting alternatives and allocating the resources necessary to implement these goals (Al-Saad and Al-Ghalbi, 1999: 174).

Some of them defined strategic planning as the process of active participation in the preparation of the programmatic goals and sub-strategies of the work units in the organization (Obaidat, 1997: 42). There are those who define planning as actions related to defining the organization's goals and means of reaching them (Durra, 1994: 96). Based on the definitions and concepts of strategic planning, a procedural definition can be given to this study as follows:

Strategic planning is the creation of new ideas that extend to the distant future and reduce the uncertainty and direct senior management managers to think properly as well as to achieve new management to exploit time as much as possible.

1.5.1.2 Strategic Planning: Importance

The world is now facing a crucial period marked by radical changes and transformations. All are struggling to survive and to find a place on the broad front, which, in society's eyes, is very narrow. These changes and changes at the local and global levels have imposed a new reality that requires special preparation and a different approach to the challenges these variables (Badr 1994: 49).

Strategic planning is an important stage of the administrative process, as it represents a method of thinking and differentiation between methods of work, to choose the most appropriate alternatives with the available capabilities on the one hand, and the nature of the desired aims on the other hand, where strategic planning is one of the modern management concepts and effective tool To achieve long-term goals as it enables organizations to study and identify their current, available and future capacities to ensure their success (Al-Dmour, 2011: 13).

Steiner (2010) Referenced that strategic planning represented a function of all managers at all levels of an organization, that help in deciding on the business in which the company should engage and on other fundamentals that shall guide and characterize the business, such as continuous growth, and it is part of the total planning process that includes management and operational planning, it also plays role in developing concepts, ideas, and plans for achieving aims successfully.

Since the mid-1990s, the variables have been increasing exponentially. Due to the tremendous progress in information and communication technology, the change that is occurring in a place results in a change in any other place. Hence, these variables have a strong impact at all local and international levels and on the public, private and non-profit sectors (Abu Bakr, 2000: 3).

The results of these variables have increased the degree of ambiguity and uncertainties in which the organizations are working, both now and in the future. The change in the economic, technical, political, social and legal factors as a result of the increasing complexity in the volume of activities and actions performed by the organizations all led to the need to think about innovation new methods of coordination between these activities and the tightening of control over their operations and the development of organizational structures, human resources, administrative methods, applied systems and management skills to be able to cope with the future (Awad, 2000: 24).

With the change of education systems, their evolution and the rapid growth in which the traditional planning entrances failed, in the confrontation of the complexities that accompanied the changes. Hence, there is a need for a pattern of planning that responds to the sensitivity of education systems to changes in the environment (Abbas, 2005: 18).

In this sense, many writers and researchers pointed to the need to use the practice of strategic planning process to meet these challenges because it depends on the future vision through the formulation of the organization's mission and internal analysis to identify the strengths and weaknesses and analysis of the external environment to identify opportunities and potential threats to identify strategic alternatives and choose the best ones for success The Organization (Al-Qatamin, 1996: 91).

The Jordanian reality was not far from these changes, which led some organizations, including Jordan University of Science and Technology in Jordan to implement long-term strategic planning to meet these challenges. The researcher chose the subject of strategic planning to be the subject of this study due to the importance of this subject in the current period and the future period. The many organizations facing the present time especially Jordan University of Science and Technology in Jordan are subject to study and have a negative impact on the performance of these organizations.

Accordingly, the importance of strategic planning lies in clarifying future directions, providing a cohesive basis for decision-making, establishing priorities, improving organizational performance, an important management tool in university concepts (Albon; Iqbal & Pearson, 2016). Mustafa (2010: 13) pointed that the aims of the implementation of strategic planning within educational organizations will help them to accurately identify the priorities related to the main purposes of educational organizations, which are focused on improving educational outputs and making them more adaptable and suitable for the current and future labor market, making them more able to achieve the desired results and more responsive to the changes occurring In the internal and external environment of the organization, which enables decision makers to make appropriate adjustments in a timely manner.

The organization's ability to improve the alignment between the organization and its external and internal environment, identify potential opportunities and threats in the future, create synergies in internal and external communications, and provide good input to management decisions as well as a cycle of oversight and guidance in the organization (Kargar and Parnell, 1996: 42-64).

According to Ololube (et, al., 2016), there is a noteworthy relationship between strategic planning and successful university management, also, there is a need for universities to promote research, teaching and learning processes through strategic improvement to strengthen university education. Weaknesses found in the university also need to be strategically improved to reduce their negative impact on the management of university system.

After reviewing the literature on strategic management thought that there are multiple levels of strategic planning with different writers, researchers and thinkers, but most agreed on the existence of three levels of strategic planning and as follows: Strategic Planning at the Corporate Level: Strategic planning at the corporate level means defining the entire course of the organization, human resource development, and environmental factors (taking care of strengths and weaknesses of competitors, taking into account capital and labor sources as well as the care of raw materials) (Daft, 2001: 242).

1. Strategic planning at the level of business units: Strategic planning at the level of business units means how each unit of the organization can contribute to the enhancement of the overall strategy of the organization. It defines the ways in which the process of managing competition is handled (Al-Qatamin, 1996: 106).
2. Strategic planning at the functional level: It refers to the plans for a particular operation or division within the organization where the emphasis is placed on the implementation of the business strategy by the function of finance and human resources as well as the function of marketing, operations and research and development. The functional strategy is an important strategy that indicates how various business activities contribute to The overall strategy of the organization (Alalak, 1998: 103).

Lewis et al., (2006: 126) mentioned that strategic planning at the corporate level, develop a mix of business units that meets the company's long-term growth strategic planning at the level of business units, to develop and maintain a distinctive competitive advantage that will ensure long-term profitability; and strategic planning at the functional level, means to develop action plans that ensure that corporate strategies are implemented.

1.5.1.3 Strategic Planning: Components

There are divergent views on the components of the strategic planning process. This is because of their theoretical background differences or because of their different focus on several aspects and the omission of other aspects. Some views may be put forward, for example, but not limited to strategic planning for (Koontz et al., 1984, 127-131) including: Mission, goals, strategies, policies, procedures, rules, programs, and budgets.

The components of strategic planning Kotler, (1997: 80) mentioned the Mission, goals, strategies, analysis, expansion, implementation and control.while Evans (1997: 99) states the Mission, goals, strategies, analysis, expansion. Hill et al., (2013:13) mentioned Mission, Vision, Values, Goals, internal and external analysis, and strategy implementation are the main components of the Strategic Planning Process

It is clear from the above that the elements agreed upon by most researchers and writers are the vision, the mission, the analysis, the goals, and the strategies on which this study is based.

In a study entitled "Impact of strategic planning on Management of Public Organization" Salkic (2014) suggested that modern public organizations should be familiar with the internal and external factors that affect their business. Achieving balance between these factors is essential for building a successful business model in the current conditions of rapid change and increased competition.

1.5.2 Innovation: Concept, Importance and Factors Affecting Innovation in Organizations

1.5.2.1 Innovation: Concept

The thinkers and the management writers differed about the definition of innovation, where there is no clear and specific agreement for reasons related to the complexity of the phenomenon itself or the multiple directions of thinkers where each one of them is considered from a certain point of view that agrees with his specialization or inclination. Seen on the basis of personal characteristics and characteristics of the creators so we will address some of the definitions as follows:

Innovation is ideas that are useful and related to solving certain problems or assembling, re-fitting known patterns of knowledge into new forms (Al-Sarzan, 2000: 28). Innovation is the development of an idea, a theory, a new scientific assumption, or anew way of managing the organization (Amer, 2001, 598). Innovation was a form of human activity and began to take care of it only in the early fifties of the 20th century. Creative studies at the time focused on the cognitive dimensions or mental factors that shape the creative thinking (Al-Salem, 2000: 100).

Innovation is a very complex phenomenon with multiple faces or dimensions, so scientists differed in the definition of the concept of innovation and there was no clear and specific definition of it may be due to the many areas where the concept of innovation on the one hand and the curricula of researchers and their jurisprudence and scientific and cultural awareness and schools of thought on the other hand; Some of them are looking at the concept of innovation based on personal characteristics and some of them are seen on the basis of the product and others on the basis that the process and some of them based on creative attitude or creative environment (Al-Amari & Al-Samarrai, 2002: 84).

Many researchers have tried to develop concepts that differed in their comprehensiveness. (Amabile et al., 1996: 78) defined it as an expression of purely authentic ideas, but originality alone is not sufficient to be creative. The idea must be appropriate and applicable and must influence how it is implemented Business to develop a product or improve the production process.

Innovation was defined as the ability of individuals to solve existing problems and as an authentic perception of

alternatives that could contribute to existing problems (Allozi, 1999: 110). It was also known as a new idea or behavior for the organization's industry, market, or public environment (Daft, 2001: 357). According to Armstrong & Kotler (2000: 355), innovation is defined as the application of new ideas in this perspective. It refers to a commodity or service that is understood and understood by anyone as new.

In the view of (AL- Dahan, 1992: 179) that innovation is a breakthrough in the application phase, that is, invention precedes innovation and depends on the level of the idea, but innovation includes the application of the idea. Innovation refers to something new introduced for the first time provided that the provider is a new one has not been touched before, innovation means the birth of something new and unfamiliar (Al-Qaryouti, 2000: 257)

(Robbins & Coulter, 1990: 404) is an innovative idea presented in the form of useful goods and services or adopted a method in the processes and that the creative organizations are characterized by their potential to direct their innovations towards useful outputs and based on the above concepts of innovation can provide a procedural concept for this study as follows: Innovation is the ability of individuals to generate new ideas characterized by scarcity, which contributes to solving existing problems and the manufacture of products or provide a new service and achieve economic or social benefit.

Innovation is considered the capability to generate new and useful ideas that concern products, services, processes, managerial practices as well as competitive strategies Olszak & Kisielnicki (2016).

In summary, innovation is a human activity that occurs in all areas of life as it happens at the level of the individual, the community, the organization and society, and its measurement is relatively relative, and only a little is recorded or given an innovative identity, which is a complex process that includes a mental element and a behavioral element.

In a study entitled "Competitive Advantage Achievement through Innovation and Knowledge," Urbancová, (2013) said that in today's highly competitive environment the goal of each organization is to defeat competition and win new customers. Individuals who are holders of knowledge represent a tool for the generation of innovations. One of the conclusions of the study is that organizations find it important to innovate and support an innovative culture.

1.5.2.2 Innovation: Importance

Innovation is one of the main tools for the growth of contemporary organizations and their ability to adapt to the conditions of the internal environment and the external environment. It is one of the axes of managers' attention in many organizations. The most creative studies agree on its importance to the organization with its many advantages. Or development of these ideas, the fields of innovation are many in the organization (the university), which is used to assess the performance of the organization and the importance of innovation stand out by achieving the following benefits (Harem, 2003:313):

1. Promote and revitalize the Organization's overall performance.
2. Improve the image of the university and make its position acceptable between Arab and international universities.
3. The success of the organization is great and can be in the forefront of universities.
4. Speed in providing new experience or change in new research.
5. Increasing the efficiency of the organization by providing new ideas to productive and service institutions (Harem: 313: 2003).

Innovations are guided forward through an interactive process of knowledge generation, application, and innovations are increasingly seen as fundamental to the competitiveness of enterprises and economies, whereas knowledge is critical to the process of innovation (Stejskal, Mikušová & Prokop, 2016). They suggest that partnerships between enterprises and universities positively affect enterprises' creation of innovation both product and process.

1.5.2.3 Innovation: Factors Affecting Innovation in Organizations

Many researchers discussed the factors affecting innovation and differed in their enumeration. Hodge and Anthony (1991: 597) believe that factors influencing innovation are: experience, skill of the employee, achievement of education, job position, organizational support, organizational culture, leadership style. (Ibarra, 1993: 471) The factors influencing innovation are (educational attainment, organizational structure, organizational support, thinking style, administrative function, centralized organizational culture and decentralization) and based on the above study will depend on factors influencing adoption of innovation Organizations are (innovation culture,

leadership style, organizational support for innovation)

1.5.3 Research Hypothesis

Based on the previous literature and studies, the hypothesis of this research is:

1. *There is no correlation between strategic planning and Innovation of the Jordan University of Science and Technology in Jordan on $\alpha \leq 0.01$*

2. *There is no impact for strategic planning on the Innovation of the Jordan University of Science and Technology in Jordan on $\alpha \leq 0.01$*

2. Research Methodology

Based on the nature of this research and the required data to answer the previously stated problem, the descriptive and the analytical methodologies were utilized, and the necessary data were collected through questionnaires that were prepared for that purpose.

2.1 Population of the Study

The population of the study consisted of those who occupy different managerial positions deans, deputy deans and heads of scientific departments at the Jordan University of Science and Technology in Jordan for they have the required experience that qualifies them to answer the items of the questionnaire. The population amounted to 128 employees.

No sampling technique was used because covering the entire population of (128) respondents were possible. The researcher handed a total of 128 questionnaires to all colleges, out of which 80 were retrieved, but 61 questionnaires were only valid for statistical analysis.

2.2 The Study Instrument

Because of the absence of a ready instrument to achieve the objectives of the study, the researcher is a prepared questionnaire for the purpose of this research, which consists of two parts. The first part pertains to items that describe the dimensions of strategic planning, which are: mission, strategic goals, strategic analysis, strategic vision, and strategy implementation using the construct of review literatures that have a relationship with strategic planning. The researcher quoted items from that literature and was reformulated in proportion to the current study, amounting (15) items, (3) items for each of these dimensions. The second part contains items that measure the organizational innovation of the university based on review literatures that have a relationship with organizational innovation. The researcher quoted items from that literature and was reformulated in proportion to the current study consisted of (12) items, (4) items for each of the innovation culture, Leadership style, support innovation, respectively. The respondents were instructed to answer using the Likert scale: 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; and 1 = Strongly Disagree.

2.3 Face Validity

The construct of review literatures was adopted to cover the first part of the research instrument that contains the items of the strategic planning dimensions. Therefore, the construct and its items were presented to a number of faculty members of the universities who have intellectual contributions and articles in this field and from different disciplines to find the extent of their suitability for such a study, as well as the level of their "fitness" to the business environment of a country such as Jordan. Their comments were taken into consideration by the researcher. The same thing applies to the second part of the questionnaire that measures the organizational innovation.

2.4 Internal Consistency

The internal consistency of the research instrument was validated by calculating the Cronbach's Alpha Coefficient, where the range of its values is from zero to one. The criterion that is used in the research to examine the reliability of each variable is that if the variable reliability is less than 0.60, it is considered to be of poor reliability. If the variable reliability is over 0.70, it is considered as a reliable measure (Sekaran, 2003). Cronbach's Alpha was calculated for all the variables that are included in the research instrument and turned out to be more than 0.70; (75%) for strategic planning (80%) for innovation and it is an appropriate degree of consistency and the instrument is ready for final application.

2.5 The Statistical Methods Applied to this Study

1. Frequencies, Means and Standard Deviation to calculate the levels of strategic planning and innovation.
2. Correlation coefficient to determine the relationship of independent variables to dependent variables.

3. Simple regression coefficient to determine the effect of independent variables on dependent variables

3. Statistical Analysis and Findings of the Study

To answer the first problem of the study on what is the level of strategic planning practice at the Jordan University of Science and Technology in Jordan, means and standard deviations for each strategic planning dimension were calculated, as shown in the table below:

Table 1. Means and Standard Deviations of the Strategic Planning Dimensions

| Construct | Measurement Items | Mean | SD | Order | Rank |
|-------------------------|--|------|------|-------|----------|
| Mission | 1. The university provides the community with current and future professions and disciplines | 3.74 | 1.11 | 16 | High |
| | 2. Curriculum development and modernization in light of contemporary scientific trends taking into account local conditions | 3.73 | 1.16 | 15 | High |
| | 3. The university transforms theoretical and applied knowledge into an ethical, cultural and social reality | 3.70 | 1.93 | 14 | High |
| Strategic Goals | 4. The university seeks to support and encourage the owners of proposals and creative ideas | 3.62 | 1.30 | 18 | Moderate |
| | 5. The University works to achieve goals that are consistent with its mission | 3.55 | 1.17 | 17 | Moderate |
| | 6. The university support and encourage the owners of proposals and creative ideas | 3.49 | 1.22 | 19 | Moderate |
| Strategic Analysis | 7. Lack of sufficient number of professors in a number of specializations | 3.18 | 1.36 | 20 | Moderate |
| | 8. The university keeps pace with scientific development continuously | 3.16 | 1.33 | 22 | Moderate |
| | 9. The university is working to address the causes of migration of scientific competencies | 3.14 | 1.11 | 21 | Moderate |
| Strategic Vision | 10. The University contributes to the preparation of efficient human resources | 3.76 | 1.37 | 23 | High |
| | 11. The University has a unique vision of achieving quality in its scientific outputs | 3.62 | 1.29 | 24 | Moderate |
| | 12. The University is working on identifying the achievable goals in line with the conditions surrounding the internal and external environment, in line with the latest developments in the world | 3.31 | 1.48 | 25 | Moderate |
| Strategy Implementation | 13. The University prepares capable individuals at all administrative, technical and leadership levels of implementing strategic planning | 3.16 | 1.39 | 27 | Moderate |
| | 14. The university has an organizational structure that helps implement the strategy | 3.34 | 1.32 | 28 | Moderate |
| | 15. The University works to achieve goals according to its vision and mission | 3.48 | 1.22 | 26 | Moderate |

The table above shows a high level of practice for strategic planning dimensions items, based on the means of the answers of the respondents of the study. Results ranged from 3.76 as the highest, and 3.14 as the lowest. Indeed, the difference between values is relatively small and leaves no room for interpretation. The researcher corrected the responses of the 60 sample members, deans, deputy deans and heads of scientific departments at the University; and then finding the mean and standard deviation. In the light of this procedure, the paragraphs were arranged from the highest vertex to the lowest amid the promised paragraphs (3) and more paragraphs are approved by the sample and represent the role of strategic planning at the University and its relationship to administrative innovation and for technical and philosophical reasons. Most of the responses were in the middle of (3.140) to (3.760) with a standard deviation of (1.99) to (1.489). This means that the deans of the colleges of University and the heads of the scientific departments have a clear vision of the planning process and share their subordinates in the planning process as it is true according to the democratic approach, and that their decisions often face positively from the officials at the University.

To answer the second problem of the study on what is the level of organizational innovation at the Jordan University of Science and Technology in Jordan, means and standard deviations for each organizational innovation dimension were calculated, as shown in the table below:

Table 2. Means and Standard Deviations of the Innovation Dimensions

| Construct | Measurement Items | Mean | SD | Order | Rank |
|--------------------|--|------|------|-------|----------|
| Innovation Culture | 1. Organization's management evaluates an annual festival to support creators | 3.95 | 1.14 | 4 | High |
| | 2. Organization Management means informing the employees about the regulations and instructions in it | 3.68 | 1.28 | 125 | High |
| | 3. organization management feels its employees that there is an existence common values between it and them | 3.49 | 1.25 | 134 | Moderate |
| | 4. The prevailing norms at the organization agree with the values that it believes in | 3.30 | 1.14 | 1 | Moderate |
| Leadership Style | 5. Management interest the creative talents of its employees | 3.57 | 1.14 | 8 | Moderate |
| | 6. organization management focuses on all tasks and how to accomplish them | 3.44 | 1.17 | 6 | Moderate |
| | 7. The organization's management seeks to resolve differences between employees | 3.40 | 1.22 | 5 | Moderate |
| | 8. organization management involves employees in decision making | 3.39 | 1.35 | 7 | Moderate |
| Support Innovation | 9. The organization qualifies human resources to activate their role in the creative process | 3.71 | 1.07 | 9 | High |
| | 10. The organization always attracts creators | 3.26 | 1.30 | 10 | Moderate |
| | 11. Save money to support creators and adopt their ideas | 3.12 | 1.13 | 12 | Moderate |
| | 12. The creative thinking and abilities of the creative staff are respected by the administrative leadership of the organization | 3.30 | 1.13 | 11 | Moderate |

The table above shows a reveal the components of the innovation of the staff at the University, including the care of the culture of innovation, the answers came at a level agreed where the proximity of the arithmetic mean of these statements between (3.95) to (3.30) and a standard deviation of (1.14) to (1.28) meaning that the items of the study sample agree on the existence of care The university administration has encouraging signs to support the creative professors in this ancient institution as a front for science and scientists. As for the style of leadership to support the creators, the results of these answers were almost consistent where the teachers agreed and to the degree of approval and indicate that circles (1.25) to (1.35). The sample of the study sample agreed with the majority of these statements and the attention of the administration of University with the innovators. Between (3.12) and (3.71) and with a standard deviation of (1.07) and (1.30). This means that the Professors, agree with the degree of approval that they see support from the University for its creators.

3.2 Testing the Hypothesis of the Study

3.2.1 Results and Findings of the Study

Ho₁. There is no significant correlation between strategic planning and Organizational Innovation of the Jordan University of Science and Technology in Jordan on $\alpha \leq 0.01$.

Table 3. Coefficients of Correlation between Strategic Planning and the Innovation Variables'

| Variables | Innovation | | | | |
|------------------|---|------|--------------|----------------|-------------------|
| | Components of Combined Strategic Planning | r | Computed (t) | Scheduling (t) | Significant Level |
| 1. Overall Index | | 0.80 | 14.4 | 2.39 | 0.01 |

Researcher have been using simple correlation coefficient in order to discover the nature of the relationship contained in this hypothesis, in order to give a sound decision on the admissibility of the hypothesis.

Table 3 shows that there is a strong significant correlation between strategic planning and the organizational innovation, as the value of their correlation coefficient (0.80) which reflect a statistically significant level of confidence in a positive relationship (99%), as this link reinforces the importance of the role of strategic planning in achieving organizational innovation in the organization, which it confirms that the value of (t) Computed (14.4) which is greater than the value of (T) Scheduling amounting to (2.39) at the significant level (0.01) and accordingly rejects this hypothesis.

Ho₂. There is no significant effect between strategic planning and organizational innovation of the Jordan University of Science and Technology in Jordan on $\alpha \leq 0.01$.

Table 4. Impact of Strategic Planning on Innovation

| Variables Components of Combined Strategic Planning | Innovation | | | |
|---|----------------|--------------|----------------|-------------------|
| | R ² | Computed (f) | Scheduling (f) | Significant Level |
| 1. Overall Index | 0.70 | 7.15 | 7.08 | 0.01 |

The data above shows that there is a positive Influential relationship between strategic planning and organizational innovation, with an R² value of (0.70). This indicates that the percentage of explained difference in organizational innovation due to the planning component is not less than (0.70) and that about (0.30) of the current variables are due to other variables not included in the current study or random variables, cannot be controlled, and this result enhance by (F) value test where computed (f) was (7.15), which is more than the value of Scheduling (f) (7.08) at a significant level (0.01); with a confidence level (99%).

There is a significant effect relationship between strategic planning and organizational innovation in the university.

4. Results Discussion and Conclusion

The results of the analysis showed that the strategic planning at the university is relatively good, which indicates the attention of the University to strategic planning of its work in order to meet the difficult conditions. Where the results of the study showed that there is a strong correlation between the strategic planning and organizational innovation at the university as the correlation coefficient between them (0.80), also, showed that there is a positive Influential relationship between strategic planning and organizational innovation in general, with a coefficient of (70%).

As strategic planning represents a way to develop and change in universities, because it works on the transition from random administrative practices, to approved participation, innovation and excellence management practices, and creativity, as it represents one of the ways to face the difficulties of the future and the challenges of educational systems

There is agreement with the deans of the faculties and the heads of the scientific departments in their tendency to strategic planning and organizational innovation where they gathered in their answers and to a degree acceptable to all the items related to strategic planning and organizational innovation.

Leakage of a considerable proportion of scientific qualifications and holders of higher degrees motivated by the requirements of living and represents this phenomenon economically and socially and scientifically and the most able to create innovation in the university and which would reduce this phenomenon.

As strategic planning in universities supports university leaders to be aware of educational processes , outputs and contributes to the achievement of the aims of the educational institution. The strategic planning in the universities should be a culture and a new way of thinking and work according to the visions and strategic objectives of each university to reach a dynamic environment characterized by excellence in performance and high productivity and contribute to the formulation of the future, and as the human element in the work has become the basis and basis in building economic and social progress, the planning processes lies in the development of human resources and the development of abilities and skills and refinement and formulated in various scientific, practical, technical and behavioral aspects.

Based on the findings of the study, it is possible to present some of the proposals which the researcher believes must be taken to activate organizational innovation at the University, as follows :

1. Although the results of the study indicated that the concerned at the University are conducting strategic planning processes, but it is not at the required level, so we suggest conducting field studies from time to time to find out the developments that may have developed in other universities in such a way that makes the administration of the University a clear environment for turn around.
2. Focusing on the activities of strategic planning and organizational innovation and commitment to apply them and move away from the neutral view that does not achieve success and excellence of the Organization and impede the ways to progress.
3. Encouraging the process of innovation and innovation among the ranks of the creative teachers and administrators through a competition for the best administrative work or the best patent in which the winner is given an appropriate reward to raise the morale of the workers and increase competition among them.
4. Providing the Deanship of Colleges at the University with individuals possessing new and varied talents that can be drawn from within the university or from outside and allowing some of them to complete their higher studies in order to provide young cadres capable of managing the organization in the future.

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