THE EFFECT OF LOGISTICS PROCESSING IN IMPROVING TECHNOLOGICAL INNOVATION ANALYTICAL RESEARCH IN AL-ITTIHAD COMPANY FOR FOOD INDUSTRY IN BABYLON GOVERNORATE – IRAQ

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ABSTRACT

This study aims to determine the effect of logistics processing on technological innovation, and to achieve this, the study adopted the logistics of processing with its dimensions represented by (determining the needs of processing, researching the supply market, choosing sources of supply, managing the demand for processing) and technological innovation with its dimensions represented by (open creativity, closed creativity). The study tried to answer the questions of the problem, the most important of which is to determine the nature of the relationship between the logistics of processing and technological innovation, the extent of the impact of the logistics of processing on technological innovation. The study was conducted at the General Company for Food Industries in Babylon Governorate, and the questionnaire was adopted to obtain the necessary data, as well as personal interviews, where the opinions of (163) of the company's employees were analyzed. The simple correlation coefficient was used to measure the correlation between the variables, as well as the (Z) test to test the significance of this relationship and the (T) test to determine the significance of the simple and multiple regression equation and the confirmatory factor analysis. The study sought to achieve a set of goals, the most important of which is assessing the extent to which the research organization understands (logistics processing) and the extent of its implementation and determining the dimensions of logistics processing and technological innovation. The study reached a number of conclusions, the most important of which are:

1. *The current study standards represented by (logistics, processing, and technological innovation) have achieved good levels of confirmatory structural honesty, and this confirms the accuracy of the conceptual structures of these standards. Confirms the strength of the measures, their consistency, and the sincerity of their representation of the variables with a specific number of dimensions and measurement items.*
2. *The supplying logistics variable has a good degree of importance according to the answers of the respondents, which indicates that the study sample company is interested in organizing its relationship with the suppliers and determines the methods and chains of its supply and processing to ensure the smooth flow and flow of all types of inputs and the continuation of its production operations without stopping and support its orientations in achieving needs and desires customers.*

Keywords: General Companies, company's employees, Technological Innovation.

INTRODUCTION

This study represents an attempt to determine the effect of the logistics of processing in achieving technological innovation, as the subject of the logistics of processing and its activities, along with the topic of technological innovation, has gained increasing importance from the book in the fields of logistics management and marketing. As the increase in products and their types and the variation in their quality levels has led organizations to increase interest in logistics and its activities, through which it is possible to promote technological innovation and thus ensure the organization for its survival and growth in the business world. Technological innovation needs different types of services, and since the need for these services varies from one innovation to another, organizations must study the needs that creativity prefers. The interest in technological innovation is a fundamental thing that contributes to increasing the organization's sales first and obtaining repeated requests for its products secondly, and that the failure of the organization to meet and provide the required level of creativity may mean losing customers. In view of the lack of studies interested in the activities of logistics processing and its relationship to technological innovation, the researcher was motivated to address this topic.

The study attempted to answer a number of questions that embodied its problem, which is (How well does the surveyed company understand your logistics supply? To what extent does the researched company implement your logistics supply? Is there a relationship between your logistics supply and technological innovation? Is there an effect of your logistics supply? in technological innovation?). The study came in four chapters, the first of which was devoted to some previous studies and the methodology of the study in two sections, where the first section dealt with some previous studies close to the current study. The second topic was devoted to clarifying the study methodology represented by (the problem, its importance, the study plan and its hypotheses), and the statistical tools and means that were adopted in the study. As for the second chapter, it dealt with the theoretical framework of the study variables in two sections, the first dealt with the concept, importance and objectives of the logistics of processing and the dimensions of the logistics of processing and its importance. As for the second topic, it deals with the study of the concept of technological innovation, its importance, and the standards of technological innovation.

The third chapter was devoted to the practical aspect of the study in three sections, the first topic came in describing and diagnosing the study variables, while the second section included testing the correlation relations between the study variables, and finally the third topic dealt with analysing and testing the trends of influence between the study variables. As for the fourth chapter, it included two chapters, the first dealt with the most important conclusions reached by the study, while the second topic dealt with the most important recommendations made by the study.

The Study Problem

The researcher’s wandering in the writings, research and academic studies, and his experience of the reality of the logistics in the company in question, motivated the researcher to delve into the subject of the study to find that the problem of the study possesses fertile ground in both the academic and applied fields. It is required to reconsider the priorities of thinking about a new agenda in topics in which interest was limited, and the most important of these topics are logistics, equipment and technological innovation (open and closed).

The researcher noticed

1. The logistics process of processing has a problem, as it relies on traditional processing (purchasing) methods, and the company does not have electronic processing methods.

2. A loss of study space from the market, a weak response to the customer and a weakness in generating new ideas for the logistics, preparing towards creativity with open and closed technology, and there is no culture friendly to creativity in the company.

From these problems resulted in a set of questions that embody the problem of the study, namely:

1. What is the understanding of the company under study for logistics?
2. Does the company care about technological innovation with open and closed technology?
3. Is there a relationship between your logistics and technological innovation?
4. Is there an effect between your logistics and equipment in technological innovation?

Objectives of the Study

Both suppliers and customers as an engine of growth in economic development and promotion of continuous innovation. Creativity is a necessary means to increase and maintain competitiveness. It only represents the continuous renewal of the product range and thus participation in change. Participation in this economic dynamic constitutes a continuous challenge for organizations, where the continuous examination of external environmental factors. As technological, economic, political and social development is necessary to maintain and expand the competitive position, the management of innovations and technologies becomes based on advanced developments and requirements. Critical disciplines of entrepreneurial trade. This aspect must be taken into account, especially in the management of processing, from advanced processing to life cycle management. The management of processing must be Able to use this strategic lever The objective of this is to identify the basic principles of innovation and technology management and to demonstrate the potential for impact through supply management, taking into account the considerations of effectiveness and efficiency to describe the design of innovation and technology management as an administrative task. Moreover, the integration of customers is considered a successful factor in the management of creativity.

Theoretical Framework for Your Logistic Processing

First: The logistics of processing guarantees all the activities that contributes to the movement of materials and manufactured and semi-finished goods from the suppliers or from the sources of raw materials to the places of production.

1. Determining the purchase (equipment): The supply department must provide it from the local and foreign markets for all the departments and subordinate departments of the organization, and the needs are determined by the departments that request the items
2. Purchasing market research (equipment): It is that research that includes interpretation, analysis and preservation of data, then extends to it and studies it at the time it needs to make the picture clear to the market.
3. Choosing and dividing the sources of supply the success in choosing the best among the sources of supply is one of the most important elements of efficiency in the completion of the processing activity in the organization.
4. Purchase order (processing): The processing procedures may differ from one organization to another depending on the capabilities and circumstances of the organization.

Second: Technological innovation you define it as renewing and expanding a range of products, services and markets associated with them, establishing new methods of production, supply and distribution, and introducing changes in the management and organization of work and the conditions and skills of the labor force.

1. Open creativity: is the implementation of new technical, economic, organizational and social solutions to the problems of organizations and markets. Rescue in the market.
2. Closed creativity: It depends on the innovations adopted by the organization and the source of the ideas in it within the organization, such as senior management, employees and departments of the organization in research, development and marketing.

The researchers used the simple correlation coefficients test (Pearson) for the purpose of testing the main hypothesis related to the correlation between the independent variable (logistics supply) with its sub-dimensions (determining the purchase of equipment, research of the purchase of supply market research, selection and evaluation of supply sources, management of supply demand) and the dependent variable (technological innovation). In order to explain the value of the correlation coefficient and how to judge it, the opinion that it is divided into five basic categories will be adopted, as shown in the table:

Table 1
CATEGORIES OF INTERPRETATION OF THE LEVEL OF CORRELATION COEFFICIENT

No.	Interpretation of the correlation	Correlation coefficient value
1	There is no correlation	r = 0
2	complete positive or negative	r = ±1
3	weak positive or negative	0.30) -0.00(±
4	strong positive or negative	(0.31-0.70) ±
5	Very strong, positive or negative	(0.71-0.99) ±

Source: Saunders, M., Lewis, P., & Thornhill, A. (2009). "Research methods for business students " 5th ed , Pearson Education Limited : Prentice Hall , England , P.459.

Table (1) shows the simple correlation coefficients (Pearson) between the variables of the current study, and indicates the type of test (2-tailed), in addition to its inclusion on the abbreviation (Sig.), which refers to the test of the significance of the correlation coefficient by comparing the calculated (t) value With tabular without showing its values, if the sign (**) appears on the correlation coefficient, this indicates the significance of the correlation coefficient at the level (0.01) and the degree of confidence (99%), while the sign (*) indicates its significance at the level (0.05). With a confidence level (95%).

Testing the correlation between the research variables: Testing the first main hypothesis: (there is a significant correlation between the logistics of processing and technological innovation).

Table 2
CORRELATION TRANSACTIONS BETWEEN LOGISTICS PROCESSING AND TECHNOLOGICAL INNOVATION

Independent Variable	Your Logistics Processing	Dimensions of Your Logistics Processing			
Dependent Variable		Processing Determination	Equipment Market Research	Selection of Processing Sources	Processing Order Management
Technological innovation	.729**	. 549**	.598**	.688**	.608**
Sig. (2-tailed)	.000	.000	.000	.000	.000
Result (Resolution)	There is a strong and significant correlation at the .000 level between the logistics of processing its dimensions and technological innovation.				

The results of the table (2) indicate that there is a positive significant correlation between the logistics variable of processing and technological innovation, as the value of the correlation coefficient between them reached (0.729 **) and this value indicates the strength

of the direct relationship between these two variables at a level of significance (0.01) and with a degree of confidence (99%).

Based on the foregoing, this relationship can be explained by the fact that the management of the company is the sample of the study if it is interested in the dimensions of the logistics of processing in terms of determining the details of the inputs that are used in the production process accurately and paying attention to the research of the supply market and how to benefit from them. To achieve the best management of the supply demand, and this would achieve the best support for the efforts of technological innovation in the company.

Based on the foregoing, the first main hypothesis can be accepted.

From the main correlation hypothesis, four sub-hypothesis emerge as follows:

1. The first sub-hypothesis test: (there is a significant correlation between the dimension of identifying equipment and technological innovation)

The results of the table (2) showed that there was a positive significant correlation between the dimension of equipment and technological innovation, as the value of the correlation coefficient between them was (0.549**) and this value indicates the strength of the direct relationship between these two variables at a significant level (0.01) and with a confidence degree (99 %). This relationship can be explained by the fact that the management of the study sample company pays attention to identifying its suppliers, the method of dealing with them, the type of relationship that regulates the procedures for dealing with them, the extent of the obligations and duties that they have towards the company, in addition to regulating their participation and determining their roles in making decisions and organizing the work of the supply chain and the extent of the flow and flow of the types of inputs This would enhance the company's efforts to adopt the best technological innovations.

Table 3
CORRELATION TRANSACTIONS BETWEEN LOGISTICS PROCESSING AND TECHNOLOGICAL INNOVATION

Independent Variable / Dependent Variable	Your Logistics Processing	Dimensions of Your Logistics Processing			
		Processing Determination	Equipment Market Research	Selection of Processing Sources	Processing Order Management
Technological innovation	0.729**	0. 549**	0.598**	0.688**	0.608**
Sig. (2-tailed)	.000	.000	.000	.000	.000

2. The second sub-hypothesis test: (there is a significant correlation between the supply market research dimension and technological innovation).

The results of the table (3) showed that there is a positive significant correlation between the research dimension of the supply market and technological innovation, as the value of the correlation coefficient between them reached (0.598**) and this value indicates the strength of the direct relationship between these two variables at a significant level (0.01) and with a confidence degree (99%). This relationship can be explained by the interest of the company's management, the sample of the study, to conduct research and studies on the supply market and evaluate suppliers according to standards of quality, cost, flexibility and delivery, and seek to follow up and control the capabilities and capabilities of suppliers in order to determine the best of them capable of providing the company with types of input in terms of raw materials, information and technology necessary to facilitate operations

Production and this would achieve the best performance for the use of technology in production processes.

Based on the foregoing, it is possible to accept the second sub-hypothesis emanating from the first main hypothesis.

3. The third sub-hypothesis test: (there is a significant correlation between the dimension of choosing the sources of equipment and technological innovation).

The results of the table (3) showed that there was a positive significant correlation between the dimension of choosing the sources of equipment and technological innovation, as the value of the correlation coefficient between them was (0.688**) and this value indicates the strength of the direct relationship between these two variables at a significant level (0.01) and with a confidence degree (99%). This relationship can be explained by the fact that the company's management, the sample of the study, seeks to pay attention to choosing the sources of supply through differentiating between them according to their capabilities in providing the company with the inputs it needs to ensure the continuity of its production operations and the continuity of its ability to ensure meeting the requirements of customers and responding to the demands and needs of the market of various products, and this in turn guides The company's efforts to invest its technological innovations in its entire production activities.

Based on the foregoing, it is possible to accept the third sub-hypothesis emanating from the first main hypothesis.

4. The fourth sub-hypothesis test: (there is a significant correlation relationship between the dimension of supply demand management and technological innovation).

The results of the table (4) showed that there is a positive significant correlation between the dimension of supplying demand management and technological innovation, as the value of the correlation coefficient between them reached (0.608**) and this value indicates the strength of the direct relationship between these two variables at a significant level (0.01) and with a confidence degree (99%). This relationship can be explained by the fact that the management of the study sample company pays attention to managing the demand for suppliers to ensure that orders for materials reach the processing department before the actual need for them in an appropriate period. Supports the use of technology in processing and production. Based on the foregoing, it is possible to accept the fourth sub-hypothesis emanating from the first main hypothesis.

CONCLUSIONS

1. The current study standards represented by (logistics, processing, and technological innovation) achieved good levels of confirmatory structural honesty, and this confirms the accuracy of the conceptual structures of these standards. Add to that the high consistency between the study standards with the answers of the researched sample at the level of the study sample company, and this Confirms the strength of the measures, their consistency and the sincerity of their representation of the variables with a specific number of dimensions and measurement items.
2. The supplying logistics variable has a good degree of importance according to the answers of the respondents, which indicates that the study sample company is interested in organizing its relationship with the suppliers and determines the methods and chains of its supply and processing to ensure the smooth and flow of all types of inputs and the

continuation of its production operations without stopping and support its orientations in achieving needs and desires customers.

3. After selecting the supplying sources, he achieved the first rank in terms of importance at the variable level of the logistics of supplying, which indicates the importance of choosing the main supplying sources for the company and organizing the type of relations with the suppliers by evaluating their capabilities and financial positions and determining the nature of the required information related to the processing and specifications of the inputs and the priorities of cost, quality and delivery .
4. After determining the processing, it ranked second in terms of importance at a variable level for the logistics of processing, which indicates the importance of diagnosing and defining the suppliers and determining the methods of processing and transportation and how the necessary information flows to perform its production and marketing activity and to ensure that the requirements of the market and customers are met.
5. The dimension of supply order management ranked third in terms of its importance within the dimensions of logistics processing. This indicates that the study sample company organizes its order management and the nature of its relations with customers and suppliers in order to achieve the best flow of materials from suppliers and the flow of finished products through distribution outlets to customers.

RECOMMENDATIONS

1. Establishing a specialized unit in the company under the name of (logistics activities) to be responsible for drawing, organizing and formulating communication lines and channels for the flow and flow of materials and information within the supply chains, regulating the nature of relations with suppliers, and being a supervisory and controlling body for following up on all supply and supply chains.
2. The necessity for the study sample company to pay great attention to logistical activities and to build long-term relationships with suppliers in order to ensure the flow and flow of all types of inputs with the required quality and specifications and to ensure the company’s continued ability to meet the needs and desires of its customers.
3. Invite the management of the study sample company to adopt a modern viewpoint in dealing with suppliers, which includes considering them as strategic partners who contribute to decision-making processes and formulating development strategies for manufacturing operations, improving the quality of products and maximizing the company's ability to respond to the needs and desires of customers.
4. The need for the administration to review the successful field experiences related to the practice of logistical activities, how they are organized, the nature of technological innovations, and how to adapt them, whether at the Arab or global level, and try to benefit from them and adapt their strengths to apply them in their field reality.
5. Cooperation with experts and specialists from academics and university professors in order to deepen the understanding and awareness of workers at all levels of the company, the study sample regarding the importance of developing logistics activities and supply chains to benefit from them in the field reality and to bring about integration between its various activities.

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