

# Studying Relationship between the Approach of Business Reengineering and Performance "An Empirical Study on Food Companies Listed at the Amman Stock Exchange"<sup>(1)</sup>

Dr. Omar F. Shaqqour\*    Dr. Talal A. Al- Kassar

Assistant Professor, Department of Accounting, Faculty of Economics and Administrative Sciences, Zarqa University, P.O. Box 132222, Zarqa 13132, Jordan

\*Email: oshaqqour@zu.edu.jo

## Acknowledgements:

*Special thanks to Zarqa University for funding this research.*

## Abstract

In Jordan, the changing dynamics of the industrial companies in general and food industry specially, forced players at all levels to re-engineering their business companies. This research aims to study the response and support food companies to the concept of business re-engineering. To measure the extent of support managements to apply the concept of re-engineering, the extent of availability requirements for the application of process re-engineering, and, to measure the extent of the application of re-engineering processes and its impact on the financial performance of food companies listed at the Amman Stock Exchange. The researchers studied the intellectual frame and scientific rooting for business reengineering to achieve study objectives. They have designed a questionnaire aimed to execute of the study problem variables in order to test hypotheses. The research suggested the following results: application of re-engineering have benefits for companies that are applied. It could improving their competitive, increasing market share, productions, efficiency, and cost reduction. There are a statistically significant relationship in the attitudes of the study sample towards the response and support management of companies, the availability of requirements of the application, and the impact of the application of business re-engineering to the performance on food companies. It recommended that reengineering process remains effective tools for companies needing to operate as effectively and efficiently. Companies are required to reengineering their business processes in order to achieve best performance and growth.

**Keywords:** Business Process, Business Process Re-engineering (BPR), Companies Performance, Information Technology, Evaluation Process.

## 1. Introduction:

Because of the large size of companies, increase competition among them, keep abreast of technological changes, and developments that have taken place in the world, thus a traditional management accounting systems are becoming inadequate. Therefore, many of the modern management techniques that aim to develop activities, operations in companies work to increase productivity development, and most important of these methods is business re-engineering.

The business arena (local or global) is replete with firms that have undergone dramatic changes in recent times. These changes are to be a large extent caused by economic recession and market forces of demand and supply. Competition, globalization and information technology are some of the others that have given rise to serious transformation in the world of business. In addition, customers' needs, choices, preferences and awareness have also changed rapidly. All of these changes have made it imperative for business organizations and their managers to begin to rethink new, better and more effective ways of doing business more profitably at low cost (Aregbeyen, 2011). The goal of business process re-engineering is to redesign and change the existing business practices or process to achieve dramatic improvement in organizational performance. Organizational development is a continuous process but the pace of change has increased in manifolds. In volatile global world organizations, enhance competitive advantage through Business Process Re-engineering (BPR) by radically redesigning selected processes (Adeyemi & Aremu, 2008).

The concept of business re-engineering in 1993 in the book of organizations engineering researchers Michael Hammer and James Champy, in their book (Re-engineering the Corporation: A Manifesto for Business Revaluation), which has presented to invite all the organization's activities. It has considered the concept of business re-engineering as an approach to development of organizations focusing on radical change of strategic operations, value-added, systems, policies and organizational structures in order to develop businesses, increase productivity and customer satisfaction (Qaryouti, 2000).

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(1)" "This research is funded by the Deanship of Research in Zarqa University /Jordan"

It aims to study the response and support food companies to the concept of business re-engineering. Therefore, this study aims:

- To measure the extent of support managements to apply the concept of re-engineering,
- To measure the extent of availability requirements for the application of process re-engineering, and,
- To measure the extent of the application of re-engineering processes and its impact on the financial performance of food companies listed at the Amman Stock Exchange

### **1.1 Research Problem:**

The concept of business re-engineering is one of the modern management accounting methods. As this concept is a process of radical change and integrated in the activities of companies, also enhances the application of this concept is the position of the company competitive. Many companies still do not realize the importance of the application of this concept in spite of the role of this concept in the development of the company's activities and improve their performance is competitive. The researchers can extract the problem of the study in the following question: What are the direction of industrial companies under study to the concept of business re-engineering?

Explain the elements of the problem can be by answering the sub-questions :

1. Is the managements of the Jordanian food companies listed at the ASE support the application of the concept of business re-engineering?
2. Are the requirements of concept of business re-engineering in the Jordanian food companies listed at the ASE are available?
3. To ensure that the concept of business re-engineering in food companies listed at the ASE has applied.
4. What is the impact of support managements to apply the concept of business re-engineering on financial performance in the Jordanian food companies listed at the ASE?
5. What is the impact the availability requirements of the concept of re-engineering business on the financial performance in the Jordanian food companies listed at the ASE?
6. What is the impact of the application of the concept of re-engineering business on the financial performance in the Jordanian food companies listed at the ASE?

### **1.2 Research Importance:**

The subject of business re-engineering is an important research area, which considered by the accountants at the international level in the recent period.

The importance of the study has highlighted, in particular, through studying the management's role of the Jordanian food companies listed at the ASE, in supporting the application the concept of business re-engineering. In addition, the availability requirements for the application of process re-engineering, and to test the impact of its application on the performance of these companies.

Therefore, the research will put in front of the beneficiaries in the Hashemite Kingdom of Jordan some field results on the extent of support of the companies' managements to applying the concept of business re-engineering. As well as, to measure the impact of their application of the concept on performance of Jordanian food companies listed at the ASE.

### **1.3 Previous Studies:**

There are many studies related business process re-engineering:

Study of Hamza, (2015) entitled "Studying of the attitudes for the industrial companies towards the implementation of business process re-engineering (A field study)". The study focused to know the attitudes of the industrial companies towards the implementation of business process re-engineering. It recognizes the efforts of the response and support of companies about this concept, the availability requirements needed by companies to apply this concept, and the impact of the implementation of concept in the performance of companies. Study of Alaleaoui (2013) entitled "Re-engineering the requirements of industrial processes and the possibility of their application in the company withstand General Steel Industries in Baghdad". The study aimed to develop a methodology for application of the entrance process re-engineering. It is one of the entrances of modern development of business organizations. This is, in order to enable them to raise their efficiency and effectiveness and capacity. While the study of Habib (2013) entitled "Understanding Critical Success and Failure Factors of Business Process Reengineering." It shows that companies need to identify the tasks that are unnecessary, causing delay and inefficiency, identification of areas and jobs that can be reengineered with the help of developed and up to date technology. Thus, BPR provides roadmap to achieve organizational goals that results in profit optimization and productivity enhancement. Another study of Damanhour (2013) entitled "Factors Affecting the Application Process Reengineering - An Empirical Study in Saudi Arabian Airlines". It aimed to examine the relationship between the application of process re-engineering and some of the factors affecting the application in the Saudi Arabian Airlines: the commitment of senior management programs, re-engineering, organizational change, and organizational culture. While another study of Kassahun (2012) entitled "The impact

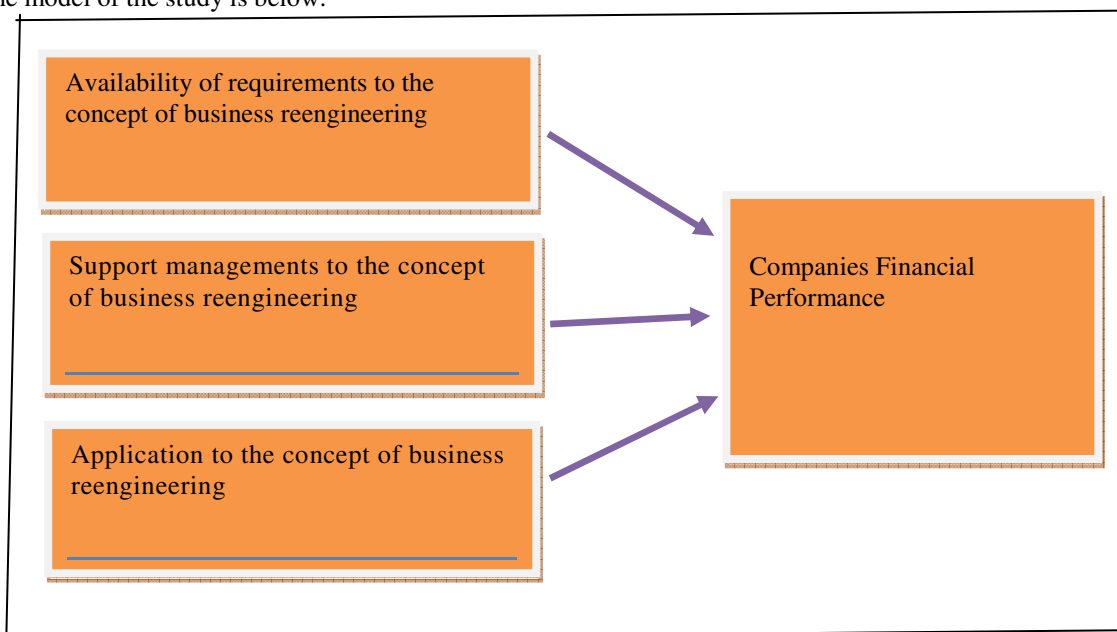
of the application of business re-engineering in the performance of public sector organizations (in the context of economic growth)". It aimed to study the relationship between the re-engineering and performance of the organization, as well as to develop a conceptual framework linking the re-engineering and performance of public sector organizations and pilot testing of this framework. The study of Aregbeyen (2011) entitled "Business Re-Engineering and Organizational Performance in Nigeria: A Case Study of First Bank Nigeria Plc". Using paired data samples between 1986 and 2008, this study evaluates the impact of the re-engineering of operational processes on the performance of the First Bank Nigeria Plc. The performance of the bank has assessed focusing on growth, profitability and the extent of financial intermediation. While the study of Mahmoud, (2007) entitled "The impact of re-engineering to achieve competitive advantage". It has applied in Wasit Company for Textile Industries as one of the Iraqi industrial sector organizations. The study, aimed to identify the importance of re-design functions and processes, and improve performance levels and lower levels of oversight and improve communication systems, also aimed also to determine the impact of the redesign of jobs, processes and improve performance levels and lower levels of oversight and improve communication systems in achieving competitive advantage for the organization in Iraq.

Through a review of previous studies, there are different themes. the researchers find that this study converge with previous studies in that many companies have found that it may be the concept of re-engineering the business has an important role in achieving a competitive edge. While this study differs from previous studies in being, will look at several aspects related to the application of the concept of re-engineering business in food companies.

## 2. Research Model & Hypotheses:

### 2.1 Research Model:

The model of the study is below:



### 2.2 Research Hypotheses

The study hypotheses were as follows:

Ho<sub>1</sub>: The managements of food companies listed at the ASE does not support the application of the concept of business re-engineering.

Ho<sub>2</sub>: The requirements of concept of business re-engineering are not available in the Jordanian food companies listed at the ASE.

Ho<sub>3</sub>: The concept of business re-engineering has not applied in food companies listed at the ASE.

Ho<sub>4</sub>: There are no statistically significant relationship trends in the study sample towards the response of managements and support the application of the concept of business re-engineering.

Ho<sub>5</sub>: There are no statistically significant relationship trends in the study sample about the availability of requirements of the concept of business re-engineering.

Ho<sub>6</sub>: There are no statistically significant relationship trends in the study sample about the impact of the application of the concept re-engineering for financial performance in the Jordanian food companies listed at the ASE.

### 3. Literature Review

Business re-engineering is the approach aims to make improvements by raising the efficiency and effectiveness of processes. It used within the organization, by considering the organization's operations, to determine how to do the best building of these processes to improve business processes in the organization. It is described as a review of the methods of work, redesign business processes and change management for business. This means that business requires a radically design of business processes to achieve dramatic improvements in cost, quality, speed, service. Also to encourage innovation in business and make significant improvements in operations so that a company can become a stronger competitor and company more successful in the market.

The term re-engineering comes from the process of taking apart an electronic product and designing a better version (Robbins, 1997). It has used to refer to the process of dismantling an old electronic product or machine and redesigning or refashioning a new machine or gadget in a way that it will work more effectively and efficiently. This was the method used by Japanese companies in the development of their technology. They merely collected already-made products from other countries, dismantled them and then redesigned and reproduced them in a manner that is easier, cheaper and faster to manufacture, market and use. It was from this method that the idea of re-engineering came into the manufacturing industry.

The cost systems and traditional management accounting have been faced many of the criticisms, which focused on the inability of these systems on the appropriateness of basic features for modern manufacturing environment. Therefore, it was necessary to bring about the need for fundamental changes in the accounting systems and administrative costs in order to fit in with those features. It results to search for tools or means to develop the systems cost and management accounting in order to correspond with the attributes of modern manufacturing environment. That showed the modern methods of management, including: the entrance to the continuous improvement (KAIZEN), the entrance to the costs of activities Activity Based Costing, the entrance to the exact timing Just In Time, entrance TQM, theory of Constraints, and the concept of re-engineering business (Hamza, 2015).

#### 3.1 The concept of re-engineering of business

Hamza, (2015), has reported that redesign the rapid and radical administrative processes strategic and value-added (core) as well as the systems, policies and organizational structures in order to maximize support workflows and increase productivity in the organization are uncanny. Kelada, (2004), has defined it as "a revolutionary change in the organization's way of thinking, and thus the performance of things, which is synonymous with innovation". Venkatraman (1994) has defined it as "the work of the organization necessary to restructure their internal operations. In order to improve the distribution of the product and improve the performance of delivery to the customer.

The concept of re-engineering has known in the early nineties of the last century, specifically in the year (1993). The first authors have been written on it are (Michael Hammer and James Champy) in their book, (re-engineering structure statement about a revolution in the business world). They defines re-engineering as a the fundamental rethinking and redesigning of business processes to achieving dramatic improvements in critical contemporary measures of performance such as quality, cost, service and speed.

Dessler (2011) has noted that, the meaning of re-engineering: is the re-basic thinking and re-radical design of the operations with a view to achieve the super-substantial improvements in the performance criteria (cost, quality, service and speed). While O'Neill and Amrik, (1999), mentioned it is the re-structure for both the organization and the organizational operations and information systems to achieve radical improvements for each of the time, cost and everything related to goods and services provided to the client.

Thus, the importance of applying the concept of re-engineering can highlight through the following:

1. Business re-engineering is an approach to a quick and substantial improvement in the performance aspects. It includes reducing the stages, the time, cost of operations and increase revenue or added value. As well as, identify competitive prices based on the cost structure of acceptable and rational.
2. Business re-engineering is a tool to deal with organizations that have deteriorating situation, in order to save them by re-engineering their operations, and that expect to manage the attainment organizational decline in the near future.
3. Re-engineering constitutes a strategic to meet the environmental variables of each organization, which are looking for efficiency, effectiveness and maintain survive (Hamza, 2015).

The operation of re-engineering designed aimed to achieve the follows (Digna, 2013):

1. Get rid of the old routine (strict style of work) and convert to freedom and flexibility.
2. Reduction in cost performance.
3. Change the manner of work of individuals from closely control and supervision applied on them, to accept the work with more powers and assume the responsibilities.
4. To achieve high quality in performance.

5. To provide fast and exceptional service.
6. To have more integration and interdependence between the components of a single process.

While Hamza, (2015) has noted that, the re-engineering targets vary from one organization to another and according to the circumstances of each organization. The status of work on them, as these goals differ per organization from time to time, and according to their exposure to certain crisis work or if the organization is working on the development of systems on a permanent basis, and sees that the process re-engineering targets in most cases are:

- Cost reduction.
- Reduce the time.
- The quality of the output.
- Work / learning quality.

### **3.2 The characteristics and basic elements of the concept of re-engineering of business**

Angus et.al, have selected a number of characteristics that distinguish the most important business re-engineering (Qasimi, 2009):

- 1- Radical redesign of administrative processes
- 2- Essential use of information and communication technology as assistant evaluation in re-engineering project.
- 3- Focus on achieving strategic objectives and results.

Select of the (Hummer and Champy) through defined for re-engineering the basic elements of this concept, which has mentioned by Ahlam, (2012):

- 1- Fundamental: any re-engineering that starting from scratch, without any assumptions or constants established prior focusing on what should be and what is neglect.
- 2- Radical: any change from the roots and not superficial or cosmetic change or apparent to the status quo, to get rid of any old situation once and find new and modern methods to perform the work, any sense of innovation and not an amendment.
- 3- Dramatic: any re-engineering that aims to achieve a huge results in rates and superior performance.
- 4- Operations: any set of activities that include inputs that produce outputs that have value for customers, and this is what distinguishes re-engineering as the focus on the systems work or what is known as the main operations of the organizations.

### **3.3 Requirements & advantages of application the concept of business re-engineering**

Applying the concept of re-engineering in organizations require from them work to create the conditions necessary and appropriate in order to achieve satisfactory results and effective. Therefore, a set of requirements have to be for these organizations to interact with each other in order to apply this concept successfully in it. These requirements include the following (Alaleaoi, 2013):

- 1- A comprehensive assessment of the organization's environment and internal and external identification of opportunities and threats.
- 2- Customizing the executive director of the re-engineering and work teams from within the organization.
- 3- To be available and pledged the commitment and support unlimited by senior management of the organization to embrace the concept of re-engineering to bring about the desired change and development.
- 4- Clarity of vision, and the overall strategy of the organization and business strategy.
- 5- Goal performance setting ambitious business re-engineering.
- 6- Direct re-engineering, starting from the top of the organization.
- 7- Full integration of human resources and information technology.
- 8- Do not neglect the prevailing organizational culture and adapted to the culture of re-engineering of the organization.
- 9- Determine the length of time to carry out the re-engineering and abide by them
- 10- Involve all employees in the organization process re-engineering and work on their training.

Thus, many advantages can achieved from applying the concept of re-engineering for the organizations, the most important are (Alaleaoi 2013):

- 1- To improve the organization's performance in the long and short-term by improving productivity and improve customer service and to diversify the products or services.
- 2- To increase of customer satisfaction on products and services higher than achieved by products and services for competitors.
- 3- To reduce of the time of delivery of products and services and reduce the response time to the requirements of the market and reduce development and manufacture of product cycle time.
- 4- To improve the level of knowledge and use in the organization.
- 5- To obtain accurate description of the core operations necessary to achieve the business strategy.
- 6- To reduce costs and raise the quality of the products.



- 7- To change the culture of the organization.
- 8- To avoid unnecessary activities that do not add value to the customer.

From the researchers' point of view, it considers that the process of providing the above requirements and advantages are essential to start applying the concept of business re-engineering; and in order to ensure the successful implementation.

### **3.4 Business re-engineering and organizational performance**

Aregbeyen (2011) mentioned that, organizational performance is the measure of how efficient and effective and organization is. In other words, how well an organization achieves its set objectives? The major objective of most business organizations is profit maximization or cost minimization. Other objectives of a firm include growth, sales maximization, increase in market share, improved productivity in terms of better quality and higher quantity of goods and services, customer satisfaction, individual enhancement and organizational development and change, etc.

Sharma (2006) posited that, business process re-engineering implies transformed processes that together form a component of a larger system aimed at enabling organization to empower themselves with contemporary technologies business solution and innovations. Organizational effective performance has become a watchword in modern business; as a result, there are inexorable pressure for Business Process Re-engineering.

Ozcelik (2010) examines whether implementation of Business Process Reengineering (BPR) projects improve firm performance by analyzing a comprehensive data set on large firms in the United States. The performance measures utilized in the paper are labor productivity, return on assets and return on equity. The researcher reported that firm performance increases after the BPR projects have finalized while it remains unaffected during execution. He further, reported that functionally focused BPR projects on average contribute more to performance than those with a broader cross-functional scope. This has interpreted as a likely indication that potential failure risk of BPR projects may increase beyond a certain level of scope.

Lastly, Altinkemer et al (2011) empirically investigated whether Business Process Reengineering (BPR) is associated with enhanced firm productivity and overall performance. They analyze firm-level panel data of large U.S. firms in the Fortune 500 list that covers the period between 1987 and 2008 using fixed effects and first differencing which are standard methods to account for unobservable firm-level effects. The researchers employ standard variables for measuring firm productivity and performance. They reportedly find that one of the used key performance variables, return on assets, drops significantly during the project initiation year. According to fixed effects results, the performance and productivity measures improve (in a decreasing manner) after project initiation. It was also reported that enterprise-wide BPR projects are associated with more negative returns during project initiation. However, there is no clear evidence about their superiority over functionally focused BPR projects in terms of performance improvements after project initiation. They opined that this might be because grand projects are risky and sometimes lead to grand failures.

## **4. Study Instruments**

After completion of the study to determine problems and hypotheses, the researchers prepared a questionnaire study. It covers all variables of model study, which included a questionnaire study in its final form to the following:

### **4.1 Data collection**

It has been to rely on two sources of data collection are:

A) Secondary sources: where they were collecting information and data from the study by reviewing the literature study theoretical and field studies related to the study by reviewing books and research journals published, in addition to the use of the Internet.

B) Primary sources: the researchers used the field survey of Jordanian food companies, to learn about the availability of the concept of business re-engineering. In addition, the requirements and the extent of support departments for the application of this concept, and knowledge of the impact of the application of this concept on the performance of these companies. The researchers prepared a questionnaire study, which included all aspects of the study and its hypothesis. It consists of two parts:

The first part includes the study objectives and scope, as well as data related to general information about the research sample companies, as well as private information concerning individual's sample.

Part II: It has designed to measure the independent variables.

### **4.2 Test of Questionnaire**

After researchers finished the initial design of the questionnaire, in order to ensure its relevance to collect the required data. It has subjected to test the honesty validity in order to ensure that the measurement tool to measure precisely and clearly defined concept and not any other concept. Where the questionnaire has presented to a

group of arbitrators, professors in scientific methodology, and in management science in general, and some practitioners, providing them with the problematic of the study was to apprise them. The researchers asked everyone to express an opinion about the clarity of the questions and phrases suitability for the purposes of the study.

#### 4.3 Study variables and how to measure:

The study variables are consist: the dependent variable is financial performance of the company and the independent variables are the support managements, availability requirements, and the application of re-engineering processes of companies applying the concept of re-engineering the business.

Dependent variable: the financial performance of the company.

The company's financial performance by measuring the return on assets of the company and extracted from the companies in the ASE guide

Independent variables:

1. Support managements of companies applying the concept of re-engineering the business: It measured by questions (1-7).
- 2- The availability of the concept of re-engineering the business requirements: It measured by questions (8-14).
3. The application of the concept of re-engineering the business: It measured by questions (15-23).

#### 4.4 Study Instrument scale

Five points Likert scale has been selected, for being one of the most metrics used to measure the opinions and responses, due to its ease of understanding , indicates where the study sample under test for the extent of their agreement for each paragraph of the questionnaire as follows:

| Strongly Agree | Agree | Not sure | Disagree | Strongly Disagree |
|----------------|-------|----------|----------|-------------------|
| 5              | 4     | 3        | 2        | 1                 |

#### 4.5 Sampling

The study population consisted of all food companies listed at Amman Stock Exchange which are (12 companies) for the year 2015. The researchers were distribute of the questionnaire for each of the (quality manager, quality control, production manager and financial manager for each company). The totaling (48) questionnaires, but what was subjected to statistical analysis only (34) because of the lack of returned or completion of the respondents, it was representing (68%). To achieve the objectives of the study were used scale (Likert) as mentioned above.

The averages were determined for the purposes of the study as follows: (4.25-5) indicate a very high degree, (3.50-4.24), indicating a high degree, (2.75-3.49) indicates a medium degree, (2-2.74) indicate the degree low (less than 2) show a very low degree.

It has found through the answers a questionnaire study that the study sample characterized by the following characteristics:

Table (1) Describe the characteristics of the study sample of managers:

| DESCRIPTIVE               | NUMBER | DISTIRBUTION       |     |
|---------------------------|--------|--------------------|-----|
| Sex                       | 32     | Male               | 94% |
|                           | 2      | Female             | 6%  |
| Scientific Specialization | 0      | Secondary or less  | 0%  |
|                           | 2      | Diploma            | 6%  |
|                           | 27     | University degree  | 79% |
|                           | 5      | Postgraduate       | 15% |
| Job Title                 | 9      | Quality Manager    | 26% |
|                           | 10     | Quality Control    | 29% |
|                           | 8      | Production Manager | 24% |
|                           | 7      | Financial Manager  | 21% |

#### 4.6 Statistical Techniques

The researchers from the process of collecting data on variables model study entered the data for Computer - program for extracting statistical results needed. It was drawing on some statistical methods available in software packages Statistical Social Sciences (SPSS), in order to process the data that have obtained through the study field of the surveyed sample; specifically the researcher used statistical methods the following:

**1- Cronbach's alpha coefficient:** it used to test the reliability tool to study under which the data are collected.

In other words, it used to test internal consistency of the paragraphs of the questionnaire.

**2- Frequencies and percentages:** they used to identify the characteristics of the study sample of accountants and auditors in industrial companies at ASE.

**3- Mean:** it used to identify the level of severity of the answer to the sample of the study in industrial companies at ASE.

**4- Standard deviation:** it used to determine the dispersion of the study sample answers from the values of the arithmetic average.

**5- T Test:** To judge the ability to accept or reject the research hypotheses by comparing (T) calculated with a significance level (0.05), taking into account that the number of sample did not exceed (34) respondents.

**6- Simple regression test:** Simple Regression and regression analysis variance (ANOVA) to measure the impact of independent variables on the dependent variable.

#### 4.7 Test the validity and reliability of the tool.

To ensure the internal consistency of the questionnaire questions and verification of constancy, the test was used (alpha (Cronbach-Alpha as the reliability coefficient calculated by this method shows the stability and consistency and rely largely).

In applying the test (alpha (Cronbach-Alpha to Questions that measure the variables of the study and the 23 questions, the alpha value was worth 0.9397, and this shows that the questions closely linked to high and that there is a high degree of stability to all the questions.

The following table shows the results of the application of the alpha coefficient to study questions. Relating to the measurement of the extent of the support managements of food companies listed at ASE applying the concept of business re-engineering, the availability requirements and the extent of the application of the concept of re-engineering business in these companies.

**Table (2) result of the test Cronbach's alpha coefficient**

| Variables  | No. of Items | Alpha  |
|--|--------------|--------|
| All Questions  | 1-23         | 0.9397 |
| Support managements to the concept of business reengineering.          | 1-7          | 0.9211 |
| Availability of requirements to the concept of business reengineering. | 8-14         | 0.9135 |
| Application to the concept of reengineering.                           | 15-23        | 0.8956 |

#### 5. Test hypothesis and discussion the results:

The researchers using EXCEL and Statistical Package for Social Sciences program (SPSS) to analyze the data and identify the descriptive statistics of the variables. The results of the study hypothesis testing, shown in Table (3) descriptive statistics for the variables of the study. Table (4) shows test of hypotheses of the study results.

**Table (3) descriptive statistics variables of the study**

|  | N  | Min    | Max    | Mean   | SD   |
|--|----|--------|--------|--------|------|
| Support managements to the concept of business reengineering.          | 34 | 0.4286 | 0.8857 | 0.6899 | 0.08 |
| Availability of requirements to the concept of business reengineering. | 34 | 0.4876 | 0.9345 | 0.7456 | 0.15 |
| Application to the concept of reengineering.                           | 34 | 0.6583 | 0.9435 | 0.8743 | 0.20 |

**Table (4) test the hypotheses of the study**

|  | T      | DF | Significant (2-tailed) |
|--|--------|----|------------------------|
| Extent of support managements to the concept of business reengineering.          | 14.818 | 33 | 0.005                  |
| Extent of availability of requirements to the concept of business reengineering. | 8.351  | 33 | 0.014                  |
| Extent of application to the concept of business reengineering.                  | 5.196  | 33 | 0.035                  |

#### 5.1 First hypothesis: *The managements of food companies listed at ASE does not support the application of the concept of business re-engineering.*

The researchers are measuring support managements of food companies listed at ASE for the application of the concept of re-engineering business by questions from 1-7 in the questioner of the study. It has calculated by using the following equation:

Extend of support = [Total values of the answers to the questions (1-7) of the questionnaire / (number of questions × 5)] × 100



Through table (3), it notes that extend of support management of food companies to apply the concept of business re-engineering is 68.99%, which is a medium degree. There was a discrepancy between the extent of support management in food companies for the concept of business re-engineering, where the highest value of 88.57% and the lowest value 42.86%.

This hypothesis has tested by using the One Sample T-test. The results shown in table (4) to extent of support managements to food companies listed at ASE of the application of the concept of business re-engineering. As the value of P-value sig. = 0.005, which is less than the value of significance level  $\alpha = 0.05$ . Therefore, reject the hypothesis of nihilism and accept the alternative hypothesis, namely that the food companies management listed at ASE support of the application to the concept of business re-engineering.

**5.2 Second hypothesis: Requirements are not available to the concept of business re-engineering in food companies listed at ASE.**

The researchers are measuring the availability of requirements for the concept of business re-engineering in food companies listed at ASE by questions from 8-14 in the questioner of the study. It has calculated by using the following equation:

$$\text{Extend of availability of requirements} = [\text{Total values of the answers to the questions (8-14) of the questionnaire} / (\text{number of questions} \times 5)] \times 100$$

Through table (3), it note that extend of availability of requirements for business re-engineering in food companies listed at ASE is 74.56%, which is a good degree. There was a discrepancy between food companies in extent of availability of requirements for the concept of business re-engineering, where the highest value 93.45 % and the lowest value of 48.76%.

This hypothesis has tested by using the One Sample T-test. The results shown in table (4) to extent of availability of requirements to food companies listed at ASE of the application for the concept of business re-engineering. As the value of P-value sig. = 0.014, which is less than the value of significance level  $\alpha = 0.05$ . Therefore, reject the hypothesis of nihilism and accept the alternative hypothesis, namely availability of requirements the concept of business re-engineering for food companies listed at ASE.

**5.3 Third hypothesis: Food companies listed on the Amman Stock Exchange does not apply the concept of business re-engineering.**

The researchers are measuring the application of the concept of business re-engineering in food companies listed at ASE by questions from 15-23 in the questioner of the study. It has calculated by using the following equation:

$$\text{Extent of application} = [\text{Total values of the answers to the questions (15-23) of the questionnaire} / (\text{number of questions} \times 5)] \times 100$$

Through Table (3), it notes that extent of the application for business re-engineering in food companies listed at ASE is 87.43%, which is very good degree. There was a discrepancy between food companies in the extent of the application for the concept of business re-engineering, where the highest value 94.35 % and the lowest value of 65.83%.

This hypothesis has tested by using the One Sample T-test. The results shown in table (4) to extent of application for the concept of business re-engineering to food companies listed at ASE. As the value of P-value sig. = 0.035, which is less than the value of significance level  $\alpha = 0.05$ . Therefore, rejects the hypothesis of nihilism and accept the alternative hypothesis, which is, that food companies listed at ASE applying the concept of business re-engineering.

**5.4 Fourth hypothesis: There are no statistically significant relationship trends in the study sample towards the response of managements and support the application of the concept of business re-engineering; to the financial performance in the Jordanian food companies listed at ASE.**

It tested the impact of support managements to apply the concept of business re-engineering to the financial performance in the Jordanian food companies using simple regression method (Simple Regression) located in the SPSS program, has been getting the results shown in the following table:

**Table (5) Regression analysis of variance table (ANOVA) Fourth hypothesis**

|            | Sum of Squares | Df | Mean Square | F      | Sig.  |
|------------|----------------|----|-------------|--------|-------|
| Regression | 856.506        | 1  | 856.506     | 25.490 | 0.000 |
| Residual   | 436.828        | 33 | 33.602      |        |       |
| Total      | 1293.334       | 34 |             |        |       |

The table shows result of test to support managements to apply the concept of re-engineering the business to financial performance in the Jordanian food companies listed at ASE. As the value of P-value sig results. = 0.00, which is less than the significance level  $\alpha = 0.05$  value. Therefore, rejects the hypothesis of nihilism and accept the alternative hypothesis, which is; **support of managements to apply the concept of**

**business re-engineering affect the financial performance in Jordanian food companies listed at ASE.**

**5.5 Fifth hypothesis: *There are no statistically significant relationship trends in the study sample about the availability of requirements of the concept of business re-engineering; to financial performance in Jordanian food companies listed at ASE.***

It tested the impact of the availability of requirements to apply the concept of business re-engineering to the financial performance in the Jordanian food companies using simple regression method (Simple Regression) located in the SPSS program, has been getting the results shown in the following table:

**Table (6) Regression analysis of variance table (ANOVA) Fifth hypothesis**

|            | Sum of Squares | Df | Mean Square | F     | Sig.  |
|------------|----------------|----|-------------|-------|-------|
| Regression | 448.152        | 1  | 448.152     | 1.021 | 0.331 |
| Residual   | 5708.011       | 33 | 439.078     |       |       |
| Total      | 6156.163       | 34 |             |       |       |

The table shows result of test to availability of requirements to apply the concept of re-engineering the business to financial performance in the Jordanian food companies listed at ASE. As the value of P-value sig results. = 0.331, which is more than the significance level  $\alpha = 0.05$  value. Therefore, rejects the hypothesis of nihilism and accept the alternative hypothesis, which is; **availability of requirements for the concept of business re-engineering does not affect the financial performance in Jordanian food companies listed at ASE.**

**5.6 Sixth hypothesis: *There are no statistically significant relationship trends in the study sample about the impact of the application of the concept re-engineering for financial performance in the Jordanian food companies listed at the ASE.***

It tested the impact of application the concept of business re-engineering to the financial performance in the Jordanian food companies using simple regression method (Simple Regression) located in the SPSS program, has been getting the results shown in the following table:

**Table (7) Regression analysis of variance table (ANOVA) Sixth hypothesis**

|            | Sum of Squares | Df | Mean Square | F      | Sig.  |
|------------|----------------|----|-------------|--------|-------|
| Regression | 2308.902       | 1  | 2308.902    | 17.183 | 0.001 |
| Residual   | 1746.831       | 33 | 439.078     |        |       |
| Total      | 4055.733       | 34 |             |        |       |

The table shows result of test to the impact of application the concept of business re-engineering to the financial performance in the Jordanian food companies listed at ASE. As the value of P-value sig results. = 0.001, which is less than the significance level  $\alpha = 0.05$  value. Therefore, rejects the hypothesis of nihilism and accept the alternative hypothesis, which is; **applying of the concept of business re-engineering affect to the financial performance in Jordanian food companies listed at ASE.**

## 6. The Conclusions and Recommendations:

### 6.1 The Conclusions:

The researchers reach to the following conclusions:

1. The applying of concept of re-engineering can get many benefits for companies. They represented by the strengthening of the competitive position, increase marketing share, increase production, efficiency, and cost reduction.
2. The study show that there is a statistically significant relationship in the field study sample. In according to the response of support managements, the availability of requirements and the impact of application of the concept of re-engineering business in the performance to food companies listed at ASE of the concept of reengineering business.

### 6.2 Recommendations:

The researchers may suggest the following recommendations:

1. There is a need to study other companies operating in Jordan in different sectors and expand the implementation of the concept of reengineering.
2. Try to find solutions for many obstacles that prevent the application to the concept of business reengineering for companies in Jordan.

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