

## Performance Evaluation of Large Food Manufacturing Establishments in the Gaza Strip by Using the Balanced Scorecard (BSC) Approach

تقييم أداء منشآت الصناعات الغذائية الكبرى في قطاع غزة من خلال استخدام بطاقة الأداء المتوازن

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**ABSTRACT:** The purpose of this research was to evaluate the level of performance at large food manufacturing establishments in the Gaza Strip by using the BSC. The evaluation was considered, the financial perspective, customer satisfaction, learning and growth perspective and internal process perspective. The study population was incorporated all Gaza's large food manufacturing establishments which employ 20 persons or more. The number of these companies was 20 establishments. The research was used a stratified random sample. The sample size was 125 persons. The sample was selected from employees, managers and owners of the establishments. A questionnaire was used as a main tool for data collection.

The study was concluded that the performance of large food manufacturing sector was satisfactory. The mean value of the BSC was 3.29. In addition, the study was indicated a low level of delegation, innovation and low loyalty among employees. Moreover, the financial performance was the weakest among the other dimensions of the BSC.

The study came up with some recommendations include, the need of using the BSC as a comprehensive tool of performance evaluation. However to make the use of BSC accessible for companies three important things need to be done: 1) develop a data collection system at companies about the four dimensions of BSC, 2) develop and install a suitable software program to apply BSC and 3) train a staff who is able and willing to use the system and competent to benefit from data collection.

ملخص: هدف هذا البحث إلى تقييم مستوى أداء منشآت صناعة الغذاء الكبرى في قطاع غزة من خلال

استخدام بطاقة الأداء المتوازن. اشتملت عملية التقييم على أربع أبعاد رئيسية وهي رضا الزبائن، الأداء

المالي، النمو والتعلم والعمليات الداخلية للمنشآت. ولقد تمثل مجتمع الدراسة في منشآت الصناعات

الغذائية التي توظف ٢٠ شخصاً فأكثر والبالغ عددها ٢٠ منشأة. ولقد قام الباحث باستخدام العينة الطبقية

والبالغ حجمها ١٢٥ شخص. ولقد تم اختيار العينة من العاملين والمدراء والمالكين. كما تم استخدام

الاستبانة كأداة رئيسية في جمع البيانات.

ولقد خرجت الدراسة بمجموعة من النتائج منها أن مستوى أداء منشآت الصناعات الغذائية الكبرى في

قطاع غزة كان مرض حيث بلغ المتوسط الحسابي لقيمة بطاقة الأداء المتوازن ٣.٢٩. كما بينت الدراسة

ضعف مستوى التفويض والإبداع والانتماء لدى الموظفين، كذلك بينت النتائج أن الأداء المالي كان هو

الأضعف بين الأبعاد الأربعة المكونة لبطاقة الأداء المتوازن.

ولقد خرجت الدراسة بمجموعة من التوصيات منها، الحاجة الماسة لاستخدام بطاقة الأداء المتوازن كونها

تعطي صورة شاملة عن أداء الشركة، ولكن كي يسهل استخدام بطاقة الأداء المتوازن من قبل الشركات

فان الأمر يتطلب تحقيق ثلاث أمور: (١) تطوير نظام لجمع البيانات لدى الشركات يغطي الأبعاد الأربعة

للأداء، (٢) تطبيق بطاقة الأداء المتوازن يتم عبر تطوير واستخدام برنامج كمبيوتر مناسب، (٣) تدريب

موظفين قادرين وراغبين في استخدام هذا النظام المقترح ولديهم القدرة على الاستفادة من البيانات

المجمعة.

## **1- Introduction:**

Balanced Scorecard (BSC) is a comprehensive model which evaluates the performance of organization from different perspectives. It measures the company's performance from four major perspectives: financial, customer, internal processes, and learning and growth. BSC provides the knowledge, skills, and systems that the employees need to innovate and build the right strategic capabilities and efficiencies that deliver specific value to the market which will eventually lead to higher return on investment (Kaplan, 2000). The Balanced Scorecard (BSC) approach provides a clear prescription as what companies should measure in order to balance the financial performance (Arveson, 1998). BSC was developed and named in the 1990s by Robert Kaplan and David Norton. Applying BSC enables management to define those key perspectives that will drive the business to success, as well as to define how to measure them. BSC provides a clear understanding of company's strategies, and how it is supported by the commitment to objectives from divisions and functional units of the organization (Balanced Scorecard Institute, 2006).

BSC performance evaluation depends on four consequential stages (Yousef, 2005):

- 1- Specifying institutional objectives.
- 2- Translating the institutional objectives to analytical performance plans.
- 3- Specifying the responsibility centers.
- 4- Developing the performance measurement indicators, which include: indicators of effectiveness, efficiency, productivity, and quality

The BSC provides executives with a comprehensive framework that translates company's vision, mission objectives and strategy into a coherent set of performance measures. Many companies were adopted mission statements to communicate fundamental values and beliefs to all employees. The mission statement addresses core beliefs and identifies target markets and core products. BSC analysis method constitutes four perspectives as follows (Kaplan and Norton, 1996):

- A. Financial Perspective. This is related to meet the expectations of the shareholders.
- B. Customer Perspective. This is related to achieve customer satisfaction.
- C. Learning and Growth Perspective. This is related to business ability to learn and grow to be ready for future.
- D. Internal Process Perspective. The internal process should be efficient and effective.

According to the Palestinian Central Bureau of Statistics (2005), Palestinian Food industrial sector was considered one of the most important manufacturing sectors in the Palestinian industry. The number of food manufacturing establishments in the West Bank and the Gaza Strip accounted for (2321) establishments in year 2004, which represented (16.7%) of the total Palestinian manufacturing establishments. The sector was employed (10525) workers in 2004, which represented (17.3%) of the Palestinian workforce who were employed in the Palestinian manufacturing sector. Therefore; this sector needs to be studied and tackled from various dimensions. This study was focused on the performance of Gaza's large food manufacturing establishments in the Gaza Strip by using the BSC. The total manufacturing establishments in the Gaza Strip accounted for (520) firms in 2004.

## **2- Study Problem:**

BSC is a tool which is used to evaluate the performance and competitive advantages of companies. This will enable businesses to achieve their objectives. This study identified the level of manufacturing performance in the large food manufacturing establishments in the Gaza Strip by using the BSC in order to enhance Gaza's manufacturing performance.

### 3- Study objectives:

- 1-Evaluate the level of performance of Gaza's large food manufacturing establishments by using the BSC method.
- 2- Explain the factors which have significant impact on BSC results in the sector.
- 3- Suggest solutions and recommendations for the factors which affect the performance of the sector.

### 4- Hypothesis:

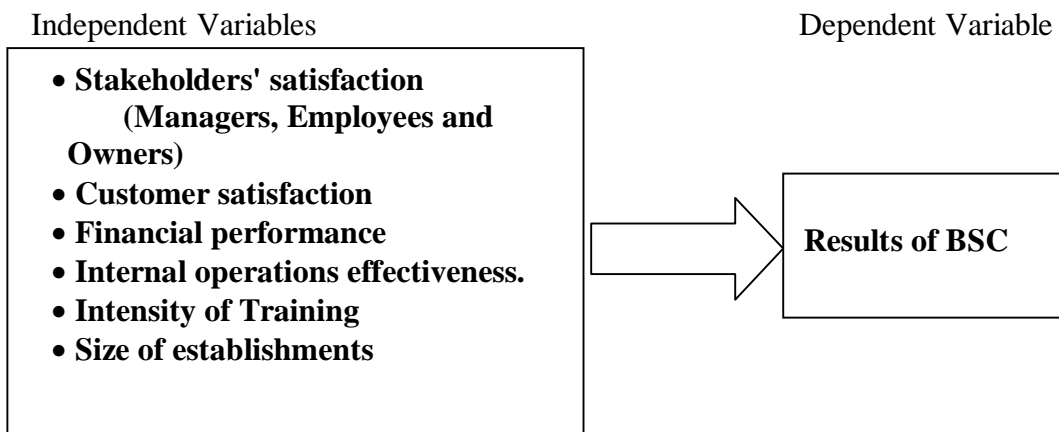
**The first Hypothesis:** There is a relative significant difference at level ( $\alpha = 0.05$ ) in the importance of the dimensions of BSC to the total BSC value.

**The Second Hypothesis:** There is a significant correlation at level ( $\alpha = 0.05$ ) between the degrees of every dimensions of the BSC and the total degree of the BSC.

**The Third Hypothesis** There is a significant difference at level ( $\alpha = 0.05$ ) in the BSC result attributed to the size of establishments.

**5- Study Variables:** According to BSC approach, four perspectives should be measured which composed of number of independent and dependent variables as shown in figure (1):

**Figure (1): Variables of the study**



## 6- Methodology

### 6.1- Research Methods

This research employs descriptive and analytical methods involving both qualitative and quantitative approaches. The fieldwork was based on distributing a questionnaire. Both primary and secondary data sources were used. The data collection was done in the following manner:

- 1) Questionnaire specifically designed for this research. The close-ended questionnaire was used because, it is easy to answer, compare and analyze.
- 2) Academic work on the subject such as books, articles, reports and other library-housed materials were collected through library research and through the internet. Overall, this study relied on a variety of sources and used a selective method in gathering the relevant information from each source in order to benefit fully from all available sources.

### 6.2- Research population

The study population includes all Gaza's large food manufacturing establishments which employ 20 persons or more. The overall food manufacturing establishments accounted for 520 firms in 2004 (see Table (1) below). Table (1) revealed that 72.3% of food manufacturing

establishments employ 4 persons or less. While 18.6% employ 5-9 persons. Only 3.7% employ 20 persons or more. These characteristics revealed that Gaza's food manufacturing establishments were dominated by small establishments. The very small establishments were not considered because; size of establishment usually influences the management characteristics and performance. Small size establishments lean to personal relations and informal planning and control.

**Table (1) Classification of food manufacturing establishments in the Gaza Strip by number of employees in year 2004.**

District	Employment size group						TOTAL
	0-4	5-9	10-19	20-49	50-99	100+	
North Gaza Governorate	58	15	4	2	0	0	79
Gaza Governorate	172	45	17	9	1	0	244
Dier Al-Balah Governorate	47	21	5	4	0	1	78
Khanyounis Governorate	72	15	1	2	0	0	90
Rafah Governorate	27	1	0	1	0	0	29
Total	376	97	27	18	1	1	520
%	72.3	18.6	5.2	3.5	0.2	0.2	100%

Source: Palestinian Central Bureau of Statistics (2005) - *General Census Of Establishments (2004) - Economic Core Results*, Ram Allah, Palestine.

### 6.3- Sample size:

The research used a stratified random sample. The sample was selected from employees, managers and owners of the large establishments. The customers were excluded because they are too broad and difficult to identify. The sample size was 125 persons. The questionnaire was distributed and collected in May 2007. The researcher considered all owners\managers to answer the questionnaire. This was done because they have comprehensive information about the company. In addition most of employed managers were selected in addition of a random sample of 90 employees (Table 2). The researcher received 125 questionnaires. All of the questionnaires were entered the process of analysis. The response rate was 100%, because personal field visits were used to distribute and collect the questionnaire.

**Table (2) Manufacturing distribution by population and sample size**

Population and sample	Number of employees	Number of managers	Number of owners\managers	Total
Population	1000	20	20	1040
Sample	90	15	20	125

Source: The population size were estimated based on data available in Table (1) and phone calls conducted with most of food manufacturing establishments with employment size 20 persons or above.

### 6.4- Information about large food manufacturing establishments in the Gaza Strip

#### 6.4.1 Age of large food manufacturing establishments in Gaza Strip

Table (3) shows that all research sample were manufacturing establishments with age more than 7 years. This reflects that large establishments were developed and with large size because they gained more experience and managed to survive despite the harsh circumstances.

**Table No (3) Research Sample by Age**

Age of Food manufacturing establishments	Frequency	Percent
Less than 3 years	0	0
3 –7years	0	0
Greater than 7 years	125	100
<b>Total</b>	125	100

#### 6.4.2 Size of Establishments

Table (4) shows that the great majority (90%) of research sample employ 20 to 49 persons. Only 10% employ 50 persons or more. These results were expected since all companies which employ less than 20 persons were excluded. Table (1) shows the different sizes of food large establishments.

**Table No(4) Size of Establishments**

Firm's size	Frequency	Percent
20-49 employees	18	90
50 employees or more	2	10
<b>Total</b>	20	100

#### 6.4.3 Legal form of the Establishments

Table (5) indicated that research sample consists of private limited corporations and none of them was public corporation. This result was logic since the sample was included the large size only (20 employees or more). However, most Gaza's establishments were small in nature probably because they rely on personal resources which were limited compared with limited corporations which can raise more fund by issuing new stocks or borrowing from banks (El-Farra, 2006).

**Table (5) Legal form of the Firm**

Legal form of the Firm	Frequency	Percent
Sole Proprietorship	0	0
Partnership	0	0
Private Limited establishment	125	100
<b>Total</b>	125	100

### 7- Content Validity of the Questionnaire

Content validity examines the extent to which the method of measurement includes all the major elements relevant to the construct being measured. Two methods were used to achieve this type of validity:

**7.1 The Experts Validation:** The questionnaire was evaluated by six experts in the field. As a result; six questions were modified but no questions were added or deleted.

#### 7.2 Pilot Study

Pilot study was conducted to assess reliability of the questionnaire. Thirty persons were chosen randomly from the study population and were asked to fill the questionnaire. Those

questionnaires were not included in the research sample. These questionnaires were used for assessing the validity and reliability of the questionnaire.

**7.3 Correlation Measurements:** Spearman correlation technique was used to confirm questionnaire's validity. The  $r$  value was 0.707 and sig. was 0.00.

#### **7.4 Reliability of the Questionnaire**

Two methods were used for reliability assessment which employed the Split-Half Coefficient and the Cronbach's Alpha Methods. Split-Half Coefficient was 0.881 and Cronbach's Alpha was 0.856.

The questionnaire was developed in the final format and distributed. This was done after taking in consideration all the limitations found.

### **8- Data Entry and Statistical Analysis**

The questionnaire was analyzed using the Statistical Package for Social Science (SPSS). The following statistical methods and tests were used:

1. Percentages, frequencies, means and proportional weighted means.
2. Spearman Coefficient to check the correlations between the degrees of every dimensions of the BSC and the total degree of all the BSC.
3. Kolmogorov-Smirnov test was calculated to define the type of data distribution. The test reveals that the data was Nonparametric.
4. Sign test to discover the difference in the level of importance of the dimensions of BSC to the total BSC value.
5. Mann-Whitney U Test to check differences in the BSC dimensions attributed to company size.

### **9- Research Importance:**

BSC is a contemporary approach of evaluating the performance of organizations. To the researcher knowledge, less attention has been paid to investigating the application of BSC in the Palestinian manufacturing establishments. Palestinian manufacturing establishments consider profitability or survival and some times job creation to the owners as the indicators to measure performance. Therefore this study may help Palestinian establishments to find a comprehensive measurements including profitability to evaluate their organizations' performance. This research will help in filling the "literature gap" in the BSC research, particularly those within the field of manufacturing sector. The study will also help in providing better understanding of the performance of the manufacturing establishments.

### **10- Theoretical Framework:**

#### **10.1- Background of the industrial sector in Palestine**

The evolution of the Palestinian manufacturing sector was obvious from the growing rate of its contribution to the Palestinian Gross Domestic Product (GDP). The manufacturing sector contribution to the GDP increased from (8%) during the Israeli occupation (1967-1994) to (16%) prior to the outbreak of the *Al-Aqsa Intifada* in September 2000 (Nofal, 2003). However, this rate was fallen to (14.6%) in 2003. This was attributed to Israeli measures including closures and the Israeli military siege on the Palestinian areas. In addition, Palestinian manufacturing sector suffers from high dependency on the Israeli economy. (Palestinian Central Bureau of Statistics, 2004).

Food manufacturing is a crucial sector within the Palestinian economy. It is regarded as one of the important parts of the manufacturing sector. The number of food manufacturing establishments represented (17.6%) of the total Palestinian manufacturing establishments in 2004 (Palestinian Central Bureau of Statistics, 2005). Food manufacturing sector is considered a strategic sector. It impacts on the health and safety of the Palestinian consumer.

Further, Palestinian family spends approximately (40%) of their income on food and beverages (Palestinian Central Bureau of Statistics, 2004).

According to the data of the Palestinian Central Bureau of Statistics (2005) the number of Gaza's food manufacturing establishments which produce food and beverages in the Gaza governorates were (520) establishments in 2004. While the number of institutions in the entire manufacturing sector in the Gaza Strip was (4083) establishments. This means that the food and drink industries represented in terms of the number of institutions (12.7%) of the volume of industry in the Gaza Strip in 2004. Food industries represent in terms of the number of workers (16%) of the total manpower in the industrial sector of Palestine in 1998. The share of workers increased in 2004 to (17.3%) (Palestinian Central Bureau of Statistics, 2005).

Moreover, food and beverages industry contributed about (23%) of the total production volume in the manufacturing industries in Palestine. This rate reflects the importance of the food sector in Palestine in job creation and filling a large proportion of the Palestinian consumer needs. Also, the increasing importance of food manufacturing industries was linked very much with other economic activities, especially the agricultural sector. Food industries contributed to stimulation of agriculture. Food manufacturing sector increased the value-added of agriculture and diversification of agricultural crops. The growth of food industries through manufacturing food plays a role in raising the income of farmers and the development of rural areas (Naser, 2005)

## **10.2- Previous studies**

Kaplan and Norton study (1992) was the first to consider balanced scorecard as a comprehensive approach to measure performance. Kaplan and Norton (1992) considered the four dimensions (financial and non-financial measures) of the BSC to gauge business performance. The study provided executives with a comprehensive framework that translates company's strategic objectives into a coherent set of performance measures. Also, Kaplan and Norton (1993) concluded that BSC will become not only a system of performance measurement but also the cornerstone of management system. They believe that BSC is the basis to strategic management system. Niven (2005) suggested a number of characteristics which should be available in the measurement tools: a- The linkage between the measurement tool and the strategy, b- Quantitative to avoid bias from evaluator to another, c- Easy to be understood and d- Suits the desired objective. Malina and Selto (2001) indicated that effective design and implementation of specific BSC would act as an effective device for controlling corporate strategy. The study indicated disagreement and tension between top and middle management regarding the appropriateness of specific aspects of the BSC; communication, control and evaluation mechanism. El-Anati (2004) examined the performance of construction companies in Jordan by using the BSC. The study used six dimensions, which include, 1) financial, 2) customers, 3) safety measures, 4) internal business processes, 5) employees innovation and learning and 6) social responsibility. The study concluded that the construction companies appreciate the importance of the BSC model and support building evaluation and measurement model for total performance by using BSC. Al Natour (2005) investigated the impact of BSC on investment decisions in Jordanian industrial companies. The analysis revealed that the BSC was useful as a measurement tool with its integrated set of financial and non-financial measurement. It enables a strategy to be validated and improves project management effectiveness. Ward (2005) examined the implementation of BSC at Lloyd's financial institute in USA. The study revealed the importance of linking the goals of the employees with the overall BSC value. The study recommended that employees need to know what a BSC is, involve employees in designing measures and evaluation should focus on outcomes and impact, not just focusing on the process and steps of using BSC. Harber (2006) said that a clearly articulated strategic plan with a clear vision, mission, measurable corporate goals and objectives, would bring certainty to staff and customers. In addition,

applying the BSC approach could change institute from an organization with non-measurable targets, to an organization with better customer satisfaction and more ability to align funding to improve results. Evans (2005) focused on strategic implementation and its relation with the BSC approach. The study revealed that few of UK hotels used explicitly BSC system in measuring performance and few applied an integrated form of performance measurement.

## 11- Hypotheses Testing

**The first Hypothesis:** There is a relative significant difference at level ( $\alpha = 0.05$ ) in the importance of the dimensions of BSC to the total BSC value.

Table (6) revealed that large food manufacturing establishments in the Gaza Strip have fair customer satisfaction and a satisfactory market share. Table (6) shows that total mean value was 3.65, proportional weight mean was 73% and sig. value was 0.00. Also it was shown that customer complains were within the expected range and dealt with his needs punctually. However, there was low satisfaction on establishments' social responsibility, where the mean value was 2.8, proportional weight mean was 56% and sig. value was 0.00. Industrial establishments in the Gaza Strip need to give extra attention to customer needs and wants. The culture of "customer always first" is still far from reach among businesses in the Gaza Strip. Regular marketing research was not considered. No budgets were allocated for marketing research. However, because of intensive competition in the Gaza Strip, businesses watch and copy the behavior of their rivals. Limited information was available on customer and competitors. Managers rely heavily on their experiences. Trial and error was dominating the behavior of businesses (El-Farra, 2004; Dohdar, 2006).

With regard to the internal business processes, Table (7) indicated a satisfactory development in the processes. The mean value was 3.3, proportional weight mean was 66% and sig. value was 0.023. Table (7) manifested that customer complains were answered within short time, the stored volume of procurements was suited the volume of customers' demand, the products were introduced according to customer needs and tastes, the products were produced in a cost almost similar to the expected cost, the indirect costs which are added to the goods prices were logic, the level of product's quality was suited its cost, the using of new technology did not cause any confusion at work and the marketing campaigns which were conducted by companies had positive effects on attracting new customers. However, Table (7) revealed low rate of introducing new products, the new products were not introduced on time, the companies had a high stock of goods and raw materials, and it was impossible to predict the volume of sales to keep a suitable quantity of goods in the warehouses of companies. Although, the internal business processes statistically significant, they need extra attention. Many companies failed to survive and compete with imported goods because of backward technology used and weak processes in introducing and developing new products and improving quality. Industries in the Gaza Strip need further attention from government to provide incentives and improve business awareness (El-Farra, 2006; Naser, 2005)..

There was a significant level of learning and growth at Gaza's large food manufacturing establishments. Table (8) indicated that the mean value was 3.26, proportional weight mean was 65.2% and sig. value was 0.034. There was a suitable level of employees whose employment add value to the company and there was enough number of employees who have special practical experience useful for the work. In addition, there were a low number of employees who left companies to work for another. This low number of people who decamp to other businesses was attributed to limited job opportunities and high unemployment rate in the Gaza Strip (Palestine Central Bureau of Statistics, 2007). Furthermore, Table (8) showed low initiatives among employees to suggest new ideas for improvement of work or products. Also, there was low loyalty among employees. They indicated their willingness to leave their



work if any opportunity arises. Managerial practices in the Gaza Strip were characterized with high level of centralization and low incentives were provided to employees. Employees were rarely encouraged to initiate and top management believe they are the source of ideas and development (Nafie, 2006).

The financial performance of companies was weak. Table (9) indicated that mean value was 2.95, proportional weight mean was 59% and sig. value was 0.001. It was obvious from Table (9) that large food manufacturing establishments were enjoyed low return on their investments, low level of profit distributed to owners, companies failed to meet their potential goals on regional investments, they had a significant cash deficits and companies' profits did not match their sales volume. The low financial performance of large food manufacturing establishments attributed mainly to Israeli occupation measures.

It should be notified that these results were based on a survey conducted before the Israeli full closures to the Gaza Strip which started at the mid of June 2007. The situation now is even worsened. According to a recent report on the impact of closures on Gazans, more than 90% of all manufacturing establishments in the Gaza Strip have been closed down because of lack of raw materials. In addition, high unemployment and high poverty rate were dominant (Palestine Central Bureau of Statistics, 2007).

Table (10) revealed that there was a variation in the levels of performance regarding the four dimensions of the BSC. The most satisfied level was customer satisfaction (73%), after that the efficiency of internal business processes (66%) and level of learning and growth came third with proportional weight mean was (65.2%). Overall the total BSC was satisfactory, where mean value was 3.29, proportional weight mean was 65.8% and sig. value was 0.014. However, this level needs to be developed. The satisfactory level of BSC at large Gaza's food manufacturing establishments does not mean that these companies use the BSC to evaluate their performance. These results were based on the opinions of the interviewed stakeholders rather than the use of the tool. Malina and Selto (2001) believed that an effective design and implementation of specific BSC would act as an effective tool for controlling corporate strategy. They indicated the need for cooperation between different managerial levels in order to identify the appropriate aspects of BSC and evaluation mechanism. Al Natour (2005) concluded that the BSC was useful as a measurement tool with its integrated set of financial and non-financial measurement. It enables a strategy to be validated and effective. Ward (2005) revealed the importance of linking the goals of the employees with the overall BSC value. The study indicated the importance of involving the employees in designing measures which focus on outcomes and impact, rather than focusing on processes. Harber (2006) said that a clearly articulated strategic plan with a clear vision, mission, measurable corporate goals and objectives, would bring certainty to staff and customers. In addition, applying the BSC approach could change institute from an organization with non-measurable targets, to an organization with better customer satisfaction and more ability to align funding to improve results. Evans (2005) revealed that few of UK hotels used explicitly BSC system in measuring performance and few applied an integrated form of performance measurement.

**Table (6) level of customer dimension as a variable of BSC at Gaza's large manufacturing establishments, sign test.**

No.	Customer Perspective	Mean	Proportional Weight mean	Sig.
1.	There is an accepted level of Customers satisfaction from the goods which are introduced from the company.	4.6	92	0.00
2.	The customers complains are in the expected range	4.6	92	0.00
3.	The company's Market Share from food industry in the Gaza Strip is suitable.	3.48	69.6	0.00
4.	The revenue from every introduced product forms a good ratio of the sales volume.	3.16	63.2	0.00
5.	The overall management expenses forms a reasonable ratio of sales volume	3.7	74.0	0.00
6.	Most of company customers prefer it rather than the other competitors.	3.7	74.0	0.00
7.	The number of new customers meet the expectations	3.2	64	0.00
8.	The company has a social responsibility by donating to Palestinian NGOs and society	2.8	56	0.00
<b>Total of Customer Perspective</b>		<b>3.65</b>	<b>73</b>	<b>0.00</b>

**Table (7) level of internal business process dimension as a variable of BSC at Gaza's large manufacturing establishments**

No.	Internal Business Processes Perspective	Mean	Proportional Weight mean	Sig.
1.	The sales from the newly introduced products form a high percentage of the total sales	2.9	58	0.01
2.	The newly introduced products exceeds the customers expectations	2.8	56	0.02
3.	The company provides the market with the new products at the suitable time	2.9	58	0.01
4.	Most of customers complains answered within short time.	3.6	72	0.00
5.	The company answer the public calls even if it was busy in routine works	3.9	78.7	0.00
6.	The company can attain its needs from goods on time without keeping them stored.	2.4	48	0.00
7.	The stored volume of procurements (inventory) suits the volume of customers' demand.	3.7	73.6	0.00
8.	It is possible to predict the volume of sales and keep a suitable quantity of goods in the stores of the company.	2.3	46	0.00
9.	The products are introduced according to consumers needs and tastes	3.4	68	0.00

10	The products are produced in a cost almost similar to the standard cost	3.7	74	0.00
11	The indirect costs which are added to the goods prices are logic.	3.5	70	0.00
12	The marketing campaigns which are conducted by the company have positive effects on attracting new customers	3.8	7.6	0.00
13	The shortness of the time spent in offering new products indicates the fastness of procedures	3.8	76	0.00
14	The utmost quality is afforded by the least cost	3.0	60	0.231
15	The level of products' quality suits their costs	3.8	76	0.00
16	Using new technology does not cause any confusion at work	3.9	78	0.00
17	Using new technology does not cause any increase in the cost or the price of products.	3.8	76	0.00
<b>Total of Internal Processes Perspective</b>		<b>3.30</b>	<b>66</b>	<b>0.023</b>

**Table (8) level of learning and Growth dimension as a variable of BSC at Gaza's large manufacturing establishments**

No.	Learning and Growth Perspective	Mean	Proportional Weight mean	Sig.
1.	Every employee suggests a number of improvements annually	2.8	56	0.00
2.	The company suggests enough training programs for the employees.	3.0	60	0.34
3.	There is a suitable ratio of employees whose employment adds value to the company.	3.7	74	0.00
4.	There is enough number of employees who have special practical experience useful for the work	4.0	80	0.00
5.	The employees are insisting to stay in their jobs in the company	2.8	56	0.00
6.	There is a low percentage of the employees who leave the company to work in another one.	3.8	76	0.00
7.	The employees have enough training hours	3.0	60	0.12
8.	The company affords Training for the employees to develop their abilities according to everyone need and the company's need as well.	3.0	60	0.24
<b>Total of Learning and Growth Perspective</b>		<b>3.26</b>	<b>65.2</b>	<b>0.034</b>

**Table (9) level of financial perspective dimension as a variable of BSC at Gaza's large manufacturing establishments**

No.	Financial Perspective	Mean	Proportional Weight mean	Sig.
1.	The company realizes a suitable return on the invested capital.	2.7	54	0.00

2.	The ratio of the profits which distributed to the owners meets their expectations	2.7	54	0.00
3.	The regional and the international investments profits realize the goals of the company's investment policies.	2.9	58	0.00
4.	The company acquire a continuous decrease in the indirect expenses which are assigned on the company's activities	3.6	72	0.00
5.	There is a high trust in the sufficiency of the company's performance in its different business fields.	3.8	76	0.00
6.	The company has enough cash flow.	2.9	58	0.00
7.	The company is able to decrease the prices of its products	2.5	50	0.00
8.	The company's profits suit the volume of its sales	2.5	50	0.00
<b>Total of Financial Perspective</b>		<b>2.95</b>	<b>59</b>	<b>0.001</b>

**Table (10) the total BSC of Gaza's large food manufacturing establishments**

No.	BSC dimensions	Mean	Proportional Weight mean	Sig.
1-	Total Customer Perspective	3.65	73	0.00
2-	Total Internal Processes Perspective	3.30	66	0.023
3-	Total Learning and Growth Perspective	3.26	65.2	0.034
4-	Total Financial Perspective	2.95	59	0.001
	Total BSC	3.29	65.8	0.014

**The Second Hypothesis:** There is a significant correlation at level ( $\alpha = 0.05$ ) between the degrees of every dimensions of the BSC and the total degree of all BSC.

Table (11) assured significant correlations between the four dimensions of the BSC and total value of the BSC. The R value for the correlations was between 0.77 and 0.87 and the sig. value was 0.00. These results reflect the positive impact of the four dimensions on the total value of BSC. This result corresponds with Evans (2005) and also with Al Natour ( 2005) and El-Anati (2004). This result reflects the fact that companies today have multidimensional objectives. It is not possible to evaluate the performance of companies by focusing on profit and finance only. Customer satisfaction, efficiency of internal business processes, level of business learning curve and growth and financial performance are all dimensions should be considered if companies would like to be comprehensive when they evaluate their performance. Therefore, any weakness in any of the four dimensions of the BSC will affect the others. This indicates that business should balance its behavior and concerns with the four dimensions otherwise level of performance will negatively be affected (Kaplan and Norton study, 1992).

**Table (11): Spearman Correlation coefficient to study the relation between the degrees of every perspective of the BSC and the whole scorecard**

BSC dimensions	r	Sig.
Total Customer Perspective	0.87	0.00
Total Internal Processes Perspective	0.77	0.00
Total Learning and Growth Perspective	0.82	0.00
Total Financial Perspective	0.85	0.00

**The Third Hypothesis** There are significant differences at level ( $\alpha = 0.05$ ) in the Balanced Scorecard results attributed to the size of establishments.

Table (12) showed that there is a significant different in the level of BSC among industrial establishments attributed to the size. The sig. value of the total BSC was 0.034. Organizations which employ 50 persons or more tend to score high BSC compared with smaller ones. Size should impact on the performance of establishments. Large companies should have resources and abilities to achieve high performance. They usually have a wide customer base and efficient internal business processes. In addition, they are more able to learn from their experience and develop their staff, which would contribute to their growth. The financial performance of companies is affected by the other three dimensions of the BSC and also affects them (El-Farra, 2006). However, the great majority of Gaza's manufacturing establishments are small with limited resources (see Table, 1). They suffer from a high failure rate because of limited resources and experience (Ashour & El-Farra, 2002). In addition, more than 97% of Gaza's establishments are family businesses, which are usually with limited resources (El-Farra, 2005).

**Table (12) the difference in the level of BSC among food manufacturing establishment attributed to size, using Mann-Whitney U**

BSC dimensions	Number of employees		Sig.
	20-49	50 or more	
Total Customer Perspective	3.4	3.9	0.00
Total Internal Processes Perspective	3.2	3.6	0.00
Total Learning and Growth Perspective	3.1	3.3	0.032
Total Financial Perspective	2.8	3.1	0.045
Total BSC	3.1	3.4	0.034

## 12- Conclusions and Recommendations

### First: Conclusions

This study was examined the performance of large food manufacturing establishments in the Gaza Strip by using the BSC. The study considered all food manufacturing companies which employ 20 persons or more. The total number of the establishments was 20. The sample was 125 persons. The sample included some of the managers, all owners and sample of the employees. The study revealed that the performance of food manufacturing sector was satisfactory. The mean value of the BSC was 3.29. However, companies do not use BSC as a tool to evaluate performance. This result was based on the opinion of interviewed persons. Further the study revealed variation in the four dimensions of the BSC. The highest score was for customer satisfaction (73%), the efficiency of internal business processes (66%) and level of learning and growth (65.2%) respectively. The financial perspective was poor, with proportional weight mean 59%.

The study also concluded low level of delegation and low power sharing at organizations. The levels of innovation and initiation were weak. There was low loyalty among employees. Employees tend to leave their jobs if suitable work opportunities arise.

There were positive interrelationships between the four dimensions of the BSC and the total value of BSC. Customer satisfaction, efficiency of internal business processes, level of business learning curve and growth and financial performance are all dimensions should be considered if companies would evaluate their performance. Therefore, any weakness in any of the four dimensions of the BSC will affect the others. This indicates that business should balance its commitment to the four dimensions otherwise level of performance will negatively be damaged. Large companies indicated a high BSC compared with small ones. Large companies should have resources and abilities to achieve high performance. They usually have a wide customer base and efficient internal business processes.

## **Second: Recommendations**

The study recommends the following:

- Palestinian manufacturing establishments need to be comprehensive in their evaluation process. The use of BSC would help companies to consider the different dimensions of performance; either customer satisfaction, internal processes, learning and knowledge and profit. However to make the use of BSC accessible for companies three important things need to be done: 1) develop a data collection system at companies about all business four dimensions, 2) develop and install a suitable software program to apply BSC and 3) train a staff who able and willing to use the system and benefit from data collection.
- Companies in the Gaza Strip need to enhance the culture of customer care and customer satisfaction. This can be done by improving a data collection system about customer needs, wants and complains. Also they should be punctual with customer requirements. Train employees and managers are necessary to enhance their skills and knowledge regarding customer care.
- Companies need to improve their financial performance by developing a computerized cash flow system. The system would help companies to predict the expected cash required and received. This would help companies to overcome liquidity problems.
- Job security and job empowerment need to be considered. Companies should improve financial incentives provided to employees. These incentives may include, pay rise, health insurance and pension scheme. Further, giving employees more delegation and share them in decision making would boost their morals and increase level of initiation and innovation.
- Companies need to give extra attention to a new product development. Because of limited resources available to companies in Gaza, they may imitate success products by duplicating them without committing any legal offence. This model was adopted by Japan in its early stage of industrialization.

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