Performance Measurement in Small and Medium-Sized Enterprises (SMEs): The Case of Jordan

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SUMMARY

تهدف هذه الدراسة الى التعرف على أهم العوامل المستخدمة في قياس الأداء للمشروعات الصغيرة والمتوسطة في القطاع الصناعي الأردني، كما وتهدف البحث الى التعرف على آلية قياس الأداء في هذه المشروعات وما هو المعايير الأساسية المستخدمة لهذا القياس. ومن أجل تحقيق أهداف الدراسة فقد تم تصميم استبيان لجمع المعلومات والبيانات المطلوبة نظراً لقلة توفر هذه البيانات وتركزت العينة في ثلاث محافظات العاصمة عمان والزرقاء كونهما تحتويان على ٦٥٪ من اجمالي عدد المنشآت الصغيرة والمتوسطة في القطاع الصناعي، وبلغت نسبة الاستجابة حوالي ٨٥٪ من اجمالي الاستبانات التي تم توزيعها وهي ٥٢٠ استبيان.

ومن أبرز النتائج التي توصلت لها الدراسة بعد التعرف على أبرز واهم خصائص المشروعات الصغيرة والمتوسطة في القطاع الصناعي، وقد بينت الدراسة الى أن قياس الأداء في المنشآت الصغيرة والمتوسطة مختلف عنه في المنشآت ذات الحجم الكبير ومن أبرز العوامل المستخدمة في قياس الأداء في المنشآت الصغيرة والمتوسطة رضا المستهلكين والجهات الاقتصادية الأخرى المتمثلة في الربحية وتوفر السيولة وتأتي بعدها تلك العناصر الانتاجية، وخلصنا ما تلحا هذه المنشآت لقياس الأداء فيها بسبب الرغبة في تحسين الجوانب الإدارية والإنتاجية وتطوير قدرات العاملين.

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Performance Measurement in Small and Medium-Sized

Abstract:

The purpose of this research paper is to identify the main variables that most used to measure the performance of Jordanian manufacturing industry. Concentration on small and medium-sized enterprises (SMEs) in manufacturing sector. The paper also aims to find out how these firms are creating performance analysis, what are the most important dimensions of performance when these SMEs are measuring and analyzing their ability to be successful in the modern business environment. In order to realise and to achieve the target of this paper, the researchers believe that a well-designed questionnaire is the best instrument to collect the required data. Our sample was concentrated to the firms were located in both Amman and Zarqa, as these are the main business areas of Jordan (more than 65 percent of SMEs are located in these two governorates). The objective of the survey was to find out the state of art in performance measurement and analysis in these enterprises. In the survey a questionnaire was sent out to 530 firms. The response rate was around 75 percent. The research approach to analyze the data is descriptive. The results of the survey will be processed with simple statistical methods.

The main and initial results of this paper is the main characteristics of the SMEs in the manufacturing sector in Jordan, which could be summarized as follows: Owners of these firms are the managers as well, most of these firms are a family business and the size of these firms is small either measured by number of employees or capital or turnover. These main characteristics of SME are consistent with main characteristics of SMEs all over the world. In addition to that the research paper shows that the performance measurements in the SMEs are different than in larger firms. The most important dimensions of performance for the SMEs seems to be satisfaction of customers and economical concepts (profitability and liquidity), also the performance of production, productivity and efficiency is important for SMEs. Finally, the small and medium-sized enterprises in manufacturing sector decide to measure their performance to improve the level of management at these firms and to develop their employees' productivity.

Keywords: Performance Measurement, Small and Medium Enterprises, SMEs in Jordan.

1 Introduction

Small and medium-sized enterprises (SMEs) have an important role in most modern economics. They are the back bone for the private sector in the world; they consist around 90 percent of the firms all over the world and they have employed between 50 - 60 percent of labor force (Hobhom, 2001). However, the importance of SMEs lies in their role in growth at various stages of economic development. They contribute to output, fulfill social objectives, attract considerable foreign reserves into a country and have a clear importance in providing employment.

In Jordan around 98 percent of manufacturing and service sector firms are small and medium-sized enterprises (SMEs), and nearly all of the retail and agriculture sectors are small and medium-sized enterprises. Further, around 80 percent of the total Jordanian labor force is employed by SMEs and around one third of the total output is produced by these firms. However, the development of SMEs in Jordan, as elsewhere in the world, is hampered by a variety of problems for different reasons. Some of these problems are due to the lack of information about these firms and the performances of these firms are not notice. For example, the commercial banks reluctant to provide loans to SMEs due to the lake of information about the performance of these firms and there is no special criteria that used to measure their performance.

Small and medium-sized enterprises differ from larger firms in their properties and objectives. The existing tools for performance analysis, like the Balanced Scorecard, Performance Pyramid etc., have been mainly developed for large firms. They are often too complicated and too heavy for to serve the needs of SMEs. However, it is interesting to explore which dimensions of performance the SMEs measure, how often they do it and which are the most important ones. Why do these firm measure performances? We can even ask whether SMEs really need perfor-

mance analysis. Such studies constitute an important area of industrial economics, but they often lack detailed empirical work, especially in the case of developing countries. Indeed, according to our knowledge, no work has been done concerning the SMEs performance measurement in Jordan up until time.

Due the importance of small and medium-sized enterprises in the Jordanian economy on one hand, and the financial problems that faced SMEs on the other hand reflecting the importance and needs for exploring the criteria that used to measure the small and medium firms performance. However, this study includes its objective in the second section, methodology of the study in section three, in section four review of literature included. Data analysis and description will appear in section five, while section six includes the research conclusions.

2 Objectives of this Study

The purpose of this research paper is to identify the main variables that most used to measure the performance of Jordanian manufacturing industry. Concentration on small and medium-sized enterprises (SMEs) in manufacturing sector. The paper also aims to find out how these firms are creating performance analysis, what is the most important dimensions of performance when these SMEs are measuring and analyzing their ability to be successful in the modern business environment.

However, the main objectives of this project can be summarized as follows:

1. To find out what needs for performance analysis there are among Jordanian small and medium-sized enterprises.

2. To find out how the firms are creating performance analysis system.

3. To identify the main reasons for performance measurement.

3 Methodology of the Study

In order to realise the target of this paper, the researchers believe that a well-designed questionnaire is the best instrument. To overcome this and due to the lack of information about SMEs, the only feasible source of such information from the entrepreneurs. This approach for data collection and information gathering is an adaptation of the Finish experience for measuring the SMEs performance as seen in Rantanen et.al (2001) and Hvolby and Thorstenson (2000).

To achieve the study aims we had to choose a representative sample from the total population of small and medium-sized enterprises in order to minimize costs and to save time. Our sample was concentrated to the firms were located in both Amman and Zarqa, as these are the main business areas of Jordan (more than 65 percent of SMEs are located in these two governorates, they have around 60 percent of Jordanian population). The objective of the survey was to find out the state of art in performance measurement and analysis in these enterprises. In the survey a questionnaire was sent out to 530 firms. The response rate was around 75 percent. There are 398 firms included in the survey, which means that each variable should have this number of observations. However, as we will see there are some missing cases due to non-response, especially for the variables that concerns financial matters such as income, profit, sales and so on. In the questionnaire there were questions dealing with the performance measurement and improvement of the firms' operation. For example the importance of the measurement of different dimensions of overall performance was inquired. The questionnaire contained also a question dealing with the dimensions of performance that the SMEs are measuring and the frequency of the measurement.

The research approach to analyze the data is descriptive. The results of the survey will be processed with simple statistical methods. For example the mean and standard deviation will be calculated for many questions. The median and mode could be a better type of average measure for this kind of statistical data. However, they do not give enough information for the entrepreneurs. The mean is much more familiar to them and that is why it will be used. The most significant factors in the questions will be found on the basis of the mean of the answers. If the mean of the answers is high compared to the means of the other answers, the factor will be meaningful, and if the mean of the answers is low compared to the others, the factor will be of little importance (i.e. for more details see Rantanen et.al (2001)).

In the questionnaire there were questions dealing with the performance measurement and improvement of the firms' operations. For example the importance of the measurement of different dimensions of overall performance was inquired. The questionnaire contained also a question dealing with the dimensions of performance that the SMEs are measuring and the frequency of the measurement. In addition to that the questionnaire includes questions about the reasons for performance measurement and the effect of the competitors on several sides. The addresses of the firms for the survey were received from Amman, Zarqa and Irbid Chambers of Industry. Thus, the management's and owner's point of view might be strongly highlighted in the answers, causing some bias.

4 Importance of the study:

Importance of this study appears from the following points:

1. The importance of small and medium-sized enterprises (SMEs) in solving the unemployment problem, so the performance of SMEs is essential.

2. No study to date has examined the performance measurement in small and medium-sized firms in Jordanian economy and this study can fill this void.

5 Performance Measurement

Performance could be defined as the ability of the firm to produce results in an a priori determined dimension in relation to the set target. The above mentioned dimensions are often connected to the ability of the firm to maximize its owners' needs and satisfy sufficiently the needs of the other groups of stakeholders. Performance measurement system can be seen as a tool used by all effective managers in achieving their desired profit goals and strategies (for more details see Simons, 2000).

According to the importance and main tasks of performance measurement could be used mainly to support the decision making by producing information from the desired estimation and measuring targets. With the measurement and analysis of performance a comprehensive view on the operation of the firm and its success and even on the causal connections between these can be obtained. In addition to that, the measurement of performance may focus not only on verifying the past, but it has to direct the firm to better performance in the future. The measures should produce information which shows where the firm is at the moment and where it should go and how. Performance measurement should be accomplished on every level of the organization and it should provide valuable information about the most important dimensions of performance. As Neely (1998) reported that the industrial firms have several reasons for performance measurement, these are as follows: tracking position, communicating performance, confirming priorities and improving performance. Many different kinds of performance measures are presented in the literature (See Foster 1986 and Brinker 1996). For example the ratios used in financial statement analysis are widely known and accepted. The measures used in internal performance meas-

urement, like ratios of productivity, quality and so on, are presented diversely in the literature. In the real world, in the firms, there are even more measures in everyday use. However, and according to the researchers' knowledge, no study to date has examined the performance measurement in small and medium-sized firms in Jordanian economy and this study can fill this void.

The answer to the above question depends on the way these measures are used. Used alone these measures can give an exact picture of the details, but it is difficult to perceive the whole with their help. We can say that performance measurement without focusing is a group of loose measures. The firms need some kind of balanced combination of different measures to analyze the whole. A large amount of performance measurement systems have been developed to solve this problem. Today the best known integrated performance measurement system is the balanced scorecard. There are also very many other measurement systems like the Performance Pyramid System, Multi-Criteria Performance/Productivity Measurement Technique (MCP/PMT) and productivity or performance matrix (for more details see Lynch and Cross 1995, Neely 1998, Kaplan and Norton 1996).

Small and Medium Enterprises (SMEs) have an important role in most economies, they consist around 90 percent of the firms all over the world and they have employed between 50 - 60 percent of labour force (Hobhom, 2001). In Jordan, SMEs consist around 80 percent of the firms of the Jordanian economy, but in manufacturing sector, they are around 98 percent of firms that have employed less than 20 workers (DOS, 2003).

An SME is often strongly based on the owner's (leader's) know-how and expertise. In a hardening and internationalizing competition new skills and knowledge are needed. Unfortunately these small firms are not always ready to adopt new methods and knowledge. They complain that lack of time and resources restrain the improvement of their operations and possibilities to uti-

lize new systems. The small and medium-sized enterprises often operate with very slight resources. The role of the owner is important and his/her needs are emphasized. The ownership is concentrated on few hands and the meaning of shareholder value might be low. The firms are often subcontractors for larger firms and they operate in a great hurry in tight competition dictated by the markets. These are perhaps the reasons why the meaning and objectives of performance measurement and analysis for SMEs differ from those of large firms.

The balanced scorecard communicates the multiple, linked objectives that companies must achieve to compete on the basis of their intangible capabilities and innovation. The scorecard translates mission and strategy into goals and measures, organized into four different perspectives: financial, customer, internal business process and learning and growth (Kaplan and Norton, 1996).

6 Data Analysis and Interpretation

Several performance indicators have been suggested in literature review and applied in practice. However, and due to the nature of SMEs in Jordan and the lack of information about this sector. This section includes the analysis of SMEs main characteristics and the performance decisions and measurements.

6.1 Characteristics of SMEs in Manufacturing Sector in Jordan

This section describes the main characteristics of the sample respondents, including such factors as job title, educational attainment, gender and age. This type of information is very useful in order to determine the nature of small and medium-sized firms in Jordan. This information is summarized in Table 1.

Table 1 shows that the vast majority of the respondents were gen-

eral managers, which is highly consistent with the main characteristics of small and medium-sized enterprises in Jordan and elsewhere. The owners of the SMEs are also the managers, as the type and scale of the activities do not require specially-qualified managers. Interviewees in some of the sub-sectors have different job titles. This reflects the complexity and variety of work in this sector compared with the other sectors, and its requirements for different kind of qualifications. In addition to that the above mentioned table shows that the average years of experience of interviewees in the sample firms in manufacturing sector is between 11 - 15 years. According to the level of education attainment, Table 1 shows that the vast majority of respondents have 2 years diploma or less. This reflects the fact that the majority of SMEs in manufacturing sector in Jordan are family businesses, and the researchers observed during there survey work that the interviewees often left schools in order to inherit the family business. Table 1 also indicates the very low percentage of interviewees that gained a higher degree (MSc or PhD). In Jordan, as elsewhere, it is not necessary to have an extremely high level of educational attainment in order to manage a small or medium-sized enterprise.

The participation of Jordanian women in the labour force is relatively low generally. Also, the questionnaire findings presented in Table 1 show that the participation of women in entrepreneurship in manufacturing sector is as low as 3 percent. This may reflect the predominance of the social values in Jordanian society, which does not encourage women to practice ownership. It is apparent that women prefer to work in the service and manufacturing sector (Five Year Plan, 1993-1997). Table 1 show that around one-third of the sample firms (76 percent) are located in Amman, while the rest of sample firms are located in the other two governorates. Most of the firms that have been included in this study were from the furniture industries, due to their share of the total firms in manufacturing sector. The above mentioned table also shows that around four-fifth (82 percent) of the sample

firms were under 20 years of age, which reflect that most of these firms are relatively new enterprises.

Questions were asked to assess the size of the firm, including its number in employment, capital used for start-up and sales turnover. Table 1 shows that around one half of firms in manufacturing sector employed less than five workers, whilst 87 percent of the firms in the sample employed less than 30 workers. However, according to the firm size assessed by the capital used for start-ups, Table 1 shows that majority of the firms in manufacturing start-up with capital sum less than J.D 10 thousands, while around 80 percent of firms used less than J.D 50 thousands to start-up. A third question was asked to assess the size of the firms in manufacturing sector according to their sales turnover. The results are also presented in Table 1. The majority of the sample firms had current sales turnover less than J.D 50 thousands, whilst around 90 percent of firms had a turnover less than J.D 200 thousands. In general, it is rare to find a small or medium-sized firm with a current sales turnover of more than J.D 200 thousands.

Finally, Table 1 shows the legal status and source of fund. Overall, it tells us that the vast majority of the firms in manufacturing sector are sole traders. This is representative of the Jordanian economy as a whole, where more than 70 percent of the firms are sole traders. While the sources of fund used at start-up stage. The results are also presented in Table 1. It shows that around 70 percent of SMEs in manufacturing sector are funded their start-up stage from self funding source, which assure the main problems that facing SMEs in borrowing money from some other sources, especially from commercial banks, at start-up stage.

6.2 Performance Decisions and Measurement

The results of the survey are considered in this section as its appear in the questionnaire. So, for the first the indicators of skills

improvement in consideration in both long and short run will be discussed. Then the measurement of performance indicators, reasons of performance measurement, and the effect of competitors in performance. The research methodology reports that the research analysis will be processed with simple statistical methods. The most significant factors in the questions will be found on the basis of the mean of the answer. If the mean of the answer is high compared to the means of the other answers, the factor will be meaningful, and if the mean of the answer is low compared to the others, the factor will be of little importance. However, Table 2 and 3 show the main indicators used to improve and to develop the firms on a long and short run respectively.

Table 2 shows that the main indicators the entrepreneur reports to improve and develop their firms on the long run according to the importance of these factors: Customers satisfaction considered as the main important indicator the respondents looking after it and always try to measure their customers' satisfaction. While the relationship with their customers comes in the second level of importance from the entrepreneurs point of view. So, this shows the importance of customer factor in the entrepreneurs practice in developing and improving their business. Then products quality, work efficiency and the efficiency in using machines take their importance respectively, which reflect the importance of product to be in a high quality at the respondents' point of view, in addition to the efficiency in buying raw materials, in using capital and executing products on time. This shows that the main two factors to develop and improve small and medium-sized enterprises in manufacturing sector in Jordan are the customers and the products from several sides. Finally, Table 2 shows that the skills and relationship with workers considered as important factors for performance measurement in the long run, but it comes at the third level after customers and the product.

However, Table 3 shows the main performance indicators for SMEs in manufacturing sector at the short run. This table shows

that the customer's satisfaction and relationship with customers again are the most important factors used in SMEs at the short run. Generally there is a homogeneous between the performance indicators in the short and long run. The only difference appears in the cost control indicator at the short run and the product's quality at the long run. This reflects that the cost control at the short run is achievable and accumulative factor and consistent with the producer behaviour to minimize their cost as mush as they can and these firms are clearly under a tight control of their owners, who are usually also managers. While the product's quality as a performance factor appear at the long run only, which is understandable due to the nature of manufacturing sector that need a longer time to improve and develop its products.

The third part of the research questionnaire includes the factors used to measure the firm's success and how often do they do this. Customers' satisfaction and the level of services provided to the customers considered as the most important factor that reflect the success of the project according to the interviewee response. The importance of this factor appears from the value of the mean, which is 4.81 as the highest value comparing with the other factors. Then the respondents report that they measure this factor in a monthly basis generally as shown in Table 4. Also, this table shows that the employees' satisfaction comes as a second factor reflecting the firms' success (Since most firms in Jordan are single-plant enterprises, we have chosen to use the terms firm, plant and establishment interchangeably) according to their satisfaction of income, work environment and safety, which is measured quarterly for the most of SMEs in Jordan. Then the productivity is the third factor. However, Table 4 also shows that the firm's environmental impact and firm's innovation considered as the lowest factor considered in the firm's success and it's very rare to be measured. This reflect the lack of research and development at the SMEs level in the Jordanian economy and this is the truth at the developing country such as Jordan and due to the lack of fund for this size of enterprises and they used to use the fund they

have for the prior reasons from their point of view (for more details see Table 4).

What are the reasons for performance measurement in small and medium-sized enterprises in manufacturing sector in Jordan? In other words, why do these firms measure performance according to the owner/managers of these firms. However, Table 5 presents the suggested reasons and from the respondents answer we find out that the most important reasons from their point of view to measure the performance of their business is the management improvement. The second is the to improve the employees performance. From these two reasons we can notice that all of the SMEs in manufacturing sector behaving consistently with the theory of the firms that always looking to maximize its profit and product, so these two reasons lead directly to the firm's general goal. One of the main obstacles facing the SMEs in Jordan in all sectors is the lack of information and the ignorance of information and data management, this is appear from the mean of the data and information distribution, which is 2.72, this is lowest important reason the respondents consider to push them to measure their firms performance.

Table 6 shows the level of efficiency in execution at several levels and how often is it measured and the proper time for measurement. These levels are employee, groups, operational departments, products, systems and policy and at the whole project level. However, according to the interviewee response the measurement of efficiency at the employee level is the most level they used to measure its efficiency at the small and medium-sized enterprises at the manufacturing sector, which reflect their concentration on the employee level to increase their products. While the product level is the second efficient level they used to measure, but at this level the proper frequency of measuring according to the respondents is quarterly at least at both levels employees and products. Then, the efficiency of execution measurement at the whole project level comes at the third level, which is used

sometimes at the SMEs in manufacturing sector. While, the efficiency at this level should be measured quarterly, but the researchers believe its quite costly at the SMEs level and they can not fund it efficiently. So, they concentrate on partial levels such as employees and products to reduce the cost and they are able to provide the required fund for such levels.

Finally, Table 7 shows the small and medium-sized entrepreneurs awareness of the performance measurement tools. However, the above mentioned table shows that the awareness of the respondents at the two main tools; Balance score- card and the statistics of product and execution as the main tools used now a day. This table shows that the vast majority of the SMEs owner/ managers know nothing about both tools, even the statistics of products and execution is better known comparing with the balance score-card. This is related to the low level of importance of the firms' development due to the lack of fund for R&D, which has been mentioned previously.

7 Conclusions

The analysis provides results that indicate many interesting findings performance measurement in the small and medium-sized enterprises in manufacturing sector in Jordan. Initially it shows the main characteristics of the SMEs in the manufacturing sector in Jordan, which could be summarized as follows: Owners of these firms are the managers as well, most of these firms are a family business and the size of these firms is small either measured by number of employees or capital or turnover. These main characteristics of SME are consistent with main characteristics of SMEs all over the world. Then the analysis of this research in particular shows that the firms' first concentration in performance measurement for small and medium-sized enterprises is the customers' satisfaction, which includes some economical aspects and points such as profitability and liquidity. So, the main and the

most important indicator if the firm's perform well is the customer satisfaction either at the long or short run. The analysis also shows the importance of the products at the long run, which reflect the manufacturing sector needs for time to improve and develop its products. Whilst the importance of the financial side appears at the short run, which reflect the importance of financial matters for SMEs.

However, this study shows that the small and medium-sized enterprises did not concentrate on the research and development sides and innovation as well, due to the financial needs for such fields that the SMEs can not cover it. And the SMEs looking to measure its performance for productivity and managerial reasons only, which means that the improvement concept is not considered for such firms as a way to improve profit, productivity and so on.

In general, this study show that the SMEs in manufacturing sector in Jordan measuring their performance to improve the level of management at their firms and to improve their employees productivity and ability for work. Again this study shows that small and medium-sized enterprises ignorance of data and information either was about the firm or any other type of data. This shows that the information problem for SMEs. However, none of the efficiency levels at execution has been measured as it should be measure properly; at least any of these efficiency levels should be measured quarterly at least. Finally, the small and medium-sized enterprises have a lack of information about the modern performance measurement tools, which reflect the low level of awareness.

Table 1: Characteristics of SMEs at the Jordanian Manufacturing Sector

	N	Minimum	Maximum	Mean	Std. Deviation
Job Title of Interviewee	398	1	4	2.80	.712
Years of experience in SMEs sector	398	1	4	2.96	.980
Level of education attainment	398	1	4	1.33	.692
Gender of Interviewee	398	0	1	.97	.164
Location of the firm	397	1	8	3.37	2.075
Sector or sub-sector activities	395	0	14	6.98	2.157
Age of Firm	398	0	48	13.09	7.087
Number of employees	398	1	4	1.57	.774
Capital used at start-up stag	398	1	4	1.74	1.079
Turnovers	398	1	4	1.62	1.034
Legal position of firms	398	1	4	1.45	.742
Source of fund	398	1	4	1.49	.796

Table 2: The Importance of Indicators to Improve and Develop a Firm at Long Run

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Customer satisfaction	398	2	5	4.85	.435
Products quality	398	2	5	4.84	.463
Relationships with customers	398	3	5	4.84	.401
Work Efficiency	398	1	5	4.80	.472
Efficiency in using Machines	398	1	5	4.68	.645
Buying Raw materials efficiently	398	1	5	4.54	.729
Efficiency in using the capital	398	1	5	4.50	.653
Products time of execution	398	1	5	4.41	.768
Relationships with employees	398	1	5	4.35	.877
Labour skills and capability	398	1	5	4.35	.769
Labour satisfaction	398	1	5	4.30	.793
Controlling the cost	398	1	5	4.26	.852
Products elasticity	398	1	5	4.14	.902
Product development	398	1	5	4.14	.859
Controlling the expenditure	398	1	5	4.07	1.041
Controlling the factory	398	1	5	4.05	.951
Speed in production	398	1	5	4.03	1.119
Training	398	1	5	3.99	1.052
Products technology	398	1	5	3.75	1.180
Marketing	398	1	5	3.72	1.279
Knowing your competitors	398	1	5	3.69	1.175
Information Technology and system	398	1	5	3.57	1.087
Stores management	398	1	5	3.34	1.521
Product strategy	398	1	5	3.29	1.201
Registering the products	398	1	5	3.07	1.379

Table 3: The Importance of Indicators to Improve and Develop a Firm at Short Run

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Customer satisfaction	398	2	5	4.81	.499
Relationships with customers	398	2	5	4.80	.456
Work Efficiency	398	1	5	4.72	.584
Efficiency in using Machines	398	1	5	4.59	.775
Buying Raw materials efficiently	398	1	5	4.44	.840
Efficiency in using the capital	398	1	5	4.43	.680
Products time of execution	398	1	5	4.30	.859
Relationships with employees	398	1	5	4.23	.980
Labour skills and capability	398	1	5	4.19	.950
Controlling the cost	398	1	5	4.17	.901
Labour satisfaction	398	1	5	4.14	.939
Products quality	398	4	4	4.00	.000
Controlling the expenditure	398	1	5	3.96	1.093
Product development	398	1	5	3.96	.937
Products elasticity	398	1	5	3.94	.921
Controlling the factory	398	1	5	3.90	.992
Speed in production	398	1	5	3.86	1.134
Training	398	1	5	3.79	1.080
Knowing your competitors	398	1	5	3.58	1.214
Marketing	398	1	5	3.56	1.335
Information Technology and system	398	1	5	3.36	1.145
Products technology	398	1	5	3.23	1.225
Product strategy	398	1	5	3.15	1.215
Stores management	398	1	6	3.14	1.471
Registering the products	398	1	5	2.86	1.330
others 1	398	0	5	.14	.817
other 2	398	0	5	.09	.658

Table 4: Performance Indicators Importance and Measurement

	N	Minimum	Maximum	Mean	Std. Deviation
Firm's financial situation	398	1	5	3.86	1.069
Measurement Frequency	398	1	5	3.20	1.026
Firm's competitiveness	398	1	5	3.76	1.085
Measurement Frequency	398	1	5	3.41	1.037
Customer's satisfaction	398	1	5	4.81	.488
Measurement Frequency	398	5	5	5.00	.000
Employees satisfaction	398	1	5	4.37	.832
Measurement Frequency	398	1	5	4.08	1.008
Firm's Development	398	1	5	3.05	1.029
Measurement Frequency	398	1	6	2.62	.905
Environmental impact	398	1	5	2.80	1.473
Measurement Frequency	398	3	3	2.50	.000
Level of productivity	398	1	5	4.11	.797
Measurement Frequency	398	1	1	4.00	.000

Table 5: The reasons of performance measurement

	N	Minimum	Maximum	Mean	Std. Deviation
Management improvement	398	1	5	4.56	.731
Improve and developing employees performance	398	1	5	4.44	.971
Labour encouragement and intensives	398	1	5	4.07	.955
Salaries improvement	398	1	5	3.89	.919
Linkages with other companies	398	1	5	3.41	1.151
Upon the customer request	398	1	5	3.39	1.321
Upon the partners request	398	1	5	3.15	1.321
Upon the lenders request	398	1	5	2.97	1.282
Organize a statistical system	398	1	5	2.78	1.383
Data and information distribution	398	1	5	2.72	1.317

Table 6: Efficiency and performance measurement

	N	Minimum	Maximum	Mean	Std. Deviation
Employee levels	398	1	5	2.64	.688
Proper time for measurement	398	1	5	4.40	1.025
Groups level / Team work	398	1	3	1.82	.781
Proper time for measurement	398	1	5	3.14	1.456
Execution at the department levels	398	1	3	1.85	.805
Proper time for measurement	398	1	5	3.14	1.465
Products levels	398	1	4	2.59	.689
Proper time for measurement	398	1	5	4.30	1.091
Systems and policy levels	398	1	5	2.06	.749
Proper time for measurement	398	1	5	3.52	1.163
The whole project level	398	1	5	2.34	.863
Proper time for measurement	398	1	5	3.98	1.296

Table 7: Performance measurement tools

	N	Minimum	Maximum	Mean	Std. Deviation
Statistics of product and execution	398	1	3	1.62	.799
Do they know what is balance score card	398	1	3	1.25	.527

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