An Analysis of Benchmarking of Business Functions in Organizations of Saudi Arabia

Nasser Akeil Kadasah¹ & Turki Mohammad Al Ahmari¹

¹ Faculty of Economics & Administration King Abdulaziz University, Jeddah, Saudi Arabia

Correspondence: Nasser Akeil Kadasah, Faculty of Economics & Administration King Abdulaziz University, Jeddah, Saudi Arabia. E-mail: nasserkadasah@hotmail.com

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Abstract

The study investigates the extent of performance benchmarking of the major business functions undertaken by the business organizations in Saudi Arabia. The study is based on five major functions namely; marketing, human resources, finance, operations, and quality. Each of these functions includes four sub functions. The scope of the study extends to private firms (manufacturing and service) as well as public and government organizations in Saudi Arabia. The study includes four sizes of organizations. The finding of the study shows that the practice of benchmarking in Saudi Arabian organizations' is not in advance level. The sequence of the application of benchmarking is found to be as follows; marketing, operations, quality, finance and human resources, respectively. The study further shows that the practice of performance benchmarking in private firms better than public organizations. However, the study concludes that there is no significant difference between companies based on their sizes.

Keywords: performance benchmarking, business functions, private sector, public sector, Saudi Arabia

1. Introduction

Benchmarking of best practices is considered as one of the tools of Total Quality Management (TQM). The use of this tool is very important since firms need to assess their functions against best practices in the industry. Benchmarking means that a company would compare its products, programs, prices, policies or strategies to those of best companies in the industry. Benchmarking can be internal comparing one department to another or external which would require a systematic benchmarking function. For an organization to claim performance benchmarking, the function should be a systematic and documented function done on perpetual basis.

The rest of the study is organized in the following sequence; review of literature, objectives if the study, statement of the problem, research methodology, hypothesis, results and discussions, concluding remarks.

2. Review of the Literature

2.1 Benchmarking

Managing businesses has become very challenging these days. Organizations across the world are seeking to outdo their competitors by having competitive edge. Businesses need competitive edge to remain viable in today's market (Ellis, 2006). Organizations seeking to excel in the age of competition must increase productivity and thereby generate more revenue. One of the tools to increase productivity is benchmarking. The advantages accruing to the organizations include cost savings, creativity, process improvements and less wastage amongst others. Changes in the business environment have demanded necessary response from organizations to sustain themselves. Organizations must respond to ever increasing demands for efficiency, effectiveness and accountability (Galera et al., 2008). In order to strive for excellence, organizations should inculcate the elements of strategic planning, manoeuvring and decision making. The use of benchmarking as a strategy helps to pursue best practices in order to create superlative quality services, products and processes (Camp, 1989). Leibfried and McNair (1991) demand that in order to be effective, benchmarking must be embraced as a continuous process to improve manufacturing and business practices.

Benchmarking is a term used by industry to compare business processes and performance metrics to like processes and metrics of other businesses for the purpose of improvement. The compared processes or practises need not necessarily be of the same marketed product type (Camp, 1989). For example, a bar coding process

from the medical community to admit patients and track their treatment history can also be adapted and used for tracking the history of time/cycle limited aircraft parts in the aerospace industry. Benchmarking definitions vary in response to changing organizational goal requirements and their performance measures. Kumar et al. (2006) defines benchmarking as the process of identifying, understanding and adapting outstanding practices from organizations anywhere in the world to help an organization improve its performance. Benchmarking is intended to systematically identify the processes and performance outcomes of an outstanding organization with those of its competitors as well as to compare processes and outcomes within the organization itself in the constantly changing business environment (Bemowski, 1991; Maire, 2002; Dervitsiotis, 2000; O'Dell and Grayson, 2000). According to Codling (1996), benchmarking is an ongoing process of measuring and improving products, services and practices against the best that can be identified worldwide. It is a systematic process for evaluating the products, services and work processes of organizations that are recognised as representing best practices, for the purposes of organizational improvement (Spendolini, 1992). Dattakumar and Jagadeesh (2003) contend that benchmarking is essential for continuous improvement of quality.

2.2 Benchmarking in Industry

Benchmarking has been widely used by firms across industry to leverage their competitiveness and it was a popular tool among the firms in the eighties and nineties. According to Foster (1992) in the early 1990s, 65% of the Fortune 1000 organizations used benchmarking as a management tool to gain competitive advantage. In France, benchmarking was so popular that 50 percent of the French 1000 companies used benchmarking regularly and 80 percent of them regarded it as an effective tool of change (Maire et al. 2005). Benchmarking pervades through diverse industry. The use of benchmarking as a competitive tool was embraced by firms cutting across diverse industry including construction, education, aviation, manufacturing, banking, financial services, insurance, healthcare services, and government amongst others (Luu et al., 2008; Henderson-Smart et al., 2006; Graham, 2005; Jarrar and Zairi, 2001; Ball et al., 2000). Ahren and Parida (2009) have applied benchmarking data for the railway infrastructure and found that benchmarking is an effective tool that can support the management towards continuous improvement. Researchers have also focused on performance measures and setting targets and they found that many companies are consistent in choosing benchmarking performance measures that are aligned with organizational strategy (Meybodi, 2009). The use of strategic tools by management to achieve competitiveness is always aligned towards the organizational goals and objectives. Benchmarking is one of the top management tools used by managers for improving efficiency. Rigby (2001), states that by 1999, more than 70 percent of managers worldwide used four management tools in descending order of use: strategic planning, mission and vision statements, benchmarking and customer satisfaction measurement.

Benchmarking has been widely used by many of the companies worldwide, both for domestic and global businesses. Amongst firms, Xerox is regarded as the first firm in the USA to have used benchmarking as a business practice. The use of benchmarking was not limited only to the western world. Japanese firms used benchmarking extensively as a strategic tool to catch up with the world's best firm (Ohinata, 1994). Benchmarking serves to achieve many goals in order to improve organizational efficacy. Dertouzos et al. (1989) and Hines (1998), state that benchmarking seek to build competitive capabilities in terms of technology, quality, delivery and productivity to use against competitors. Benchmarking has been proved to be a valid tool for both domestic and international businesses. It is a useful tool for the empirical validation of improved operational and business performance outcomes in both domestic and global businesses (Voss et al., 1997; Luria and Wiarda, 1996; Lefebvre and Lefebvre, 1998).

Different classifications have been used for benchmarking. The measurement parameters used for benchmarking targets include cost, schedule and performance. Camp (1989) states that the benefits include improved business/manufacturing processes that reduce waste, streamline manufacturing cycle time and improve the quality of the product. These in turn increase the bottom line for a competitive organization. In addition, Camp (1989) classified benchmarking into six types; strategic, best-in-class, financial, investor prospective, operational, performance, product and process benchmarking. In addition, Zairi (1994) classified benchmarking into four types; internal, competitive, functional and generic benchmarking. The benchmarking process can be divided into four different phases (planning, analysis, integration and action) and phase-specific steps as outlined by Camp (1989); Ohinata (1994) and Wilkerson et al. (1992).

2.3 Benefits and Barriers of Benchmarking

Benchmarking may enhance the competitiveness of firms, if implemented effectively. Benefits accrue in the form of better processes, improved cycle time, reduced costs and better supplier management. Reports and case

studies in the U.S suggest that in 1990's all the fortune 500 companies were using benchmarking on a regular basis (Kumar and Chandra, 2001). Moreover, benchmarking may provide window to organizations to new methods, ideas and tools to improve their effectiveness to solve their problems within. Benchmarking enable the best practices from any industry to be creatively incorporated into the processes of the benchmarking function (Camp, 1989). Benchmarking also helps in breaking down the reluctance in making operational changes. According to Balm (1996), benchmarking is a valuable tool for setting goals; it is something that is necessary in order to remain competitive and for learning new ideas. Benchmarking also aids in the improvement of profitability and competitive advantage. Magd (2008) has indicated that the most important reasons for initiating benchmarking are to maintain and increase competitive advantage, increased profitability and achieve continuous improvement. Apart from tangible benefits, benchmarking also offers intangible benefits. Benchmarking has been proven to be the best discipline for getting people focus on the customers and achieve significant improvement in customer satisfaction (Lee et al., 2006). It helps in improvement of communication and emphasizing on the importance of internal customer satisfaction. In addition, Brah et al. (2000) contend that the success of benchmarking can be measured by the extent to which practitioners of benchmarking have attained their objectives, justified costs by the benefits attained from benchmarking and their perception of overall success of the process. They also state that the benefits of benchmarking are significant.

Williams et al. (2012) identified the organizational challenges that were responsible for the inertia in adopting benchmarking practises and measures to overcome benchmarking reluctance. The role of benchmarking in improving the competitiveness of business firms cannot be underestimated. It is known that benchmarking allows firms to adopt the best practices of other firms. But many a times, in doing so, they stay behind and do not necessarily move beyond those other firms. It is true that all benchmarking efforts may be successful. Szulanski and Winter (2002) mention some barriers to effective benchmarking include; uncooperative sources, strained personal relationship, internal competition, overemphasis on innovation and cranky copiers.

3. Objectives of the Study

• The main objective of this study is to explore the extent of performance benchmarking practices in the major functions within the organizations in Saudi Arabia.

• To examine the differences, if any between the different sizes of organizations in performing benchmarking in the country.

• To assess the difference, if any between the private companies and government organizations in the execution of benchmarking in these firms.

• Finally, the study will provide some useful recommendations that might contribute to the well being of Saudi organization in the field of benchmarking.

4. Statement of the Problem

The review of literature shows that there is dearth of research in the field of benchmarking in Saudi Arabia in business organizations. On the other hand the review of literature shows the importance of benchmarking and its benefits. Also the benchmarking is important tool used by the companies in developed countries. Thus in this study the researchers investigate the level of benchmarking in Saudi Arabian companies.

5. Research Methodology

5.1 Data Collection

The present study is based on primary data collected from business organizations in Saudi Arabia. Data for the study was collected from a sample of 70 respondents. A structured questionnaire with close ended questions was administered to the managers of the respondent company.

5.2 Survey Instrument

A comprehensive questionnaire was developed for data collection from the managers of the business organizations in Saudi Arabia. Though the questionnaire was originally developed in English, it was translated into Arabic language for better understanding of the respondents and high response rate. A total number of 113 questionnaires were distributed, among them, 91 questionnaires were collected and 70 of them were found usable for analysis. Five point Likert scale was used in all questions namely; always, often, sometimes, rarely and never. To determine the extent of approval of the respondents five groups of responses based on the mean of the response were formed. The five groups are as follows:

Firstly, the mean 1 to less than 1.8 represents (never);

Secondly, the mean 1.8 to less than 2.6 represents (rarely);

Thirdly, the mean 2.6 to less than 3.4 represents (sometimes);

Fourthly, the mean 3.4 to less than 4.2 represents (often);

Finally, the mean 4.2 to 5 represents (always).

5.3 Statistical Tools

Statistical tools used for the analysis of the collected data were percentages, mean, frequencies, Pearson correlation coefficient, ANOVA analysis, Alpha Cronbach reliability test have been used to draw meaningful results.

6. Results and Discussions

The results of the data analysis have been grouped into two sections. The first section analyses the validity (honesty), consistency, and reliability of the primary data collected through the questionnaire. In the first phase of validity; honesty (virtual views of arbitrators) techniques have been used and in the second phase of validity; believe internal consistency has been used.

Mar	keting	Huma	n Resources	F	inance	Op	erations	Q	uality
No.	R	No.	R	No.	R	No.	R	No.	R
1	0.896**	5	0.840**	9	0.924**	13	0.873**	17	0.879**
2	0.849**	6	0.899**	10	0.913**	14	0.886**	18	0.827**
3	0.904**	7	0.883**	11	0.953**	15	0.921**	19	0.951**
4	0.842**	8	0.826**	12	0.941**	16	0.931**	20	0.925**

Table 1. Correlation coefficient for the 20 questions

** Correlation is significant at the 0.01 level

Table 1 shows high degree of correlation at the level close to one (1). These correlation values indicate high degree of sincerity of the internal consistency of the questionnaire. In addition, structural honesty of the questionnaire of the five groups of questions included in the study has been conducted and the results are depicted in Tale 2.

Table 2. Correlation coefficient for the five groups of questions (total values)

No	Groups (Functions)	Correlation Coefficient
1	Marketing	0.799**
2	Human recourses	0.869**
3	Finance	0.919**
4	Operations	0.925**
5	Quality	0.924**

** Correlation is significant at the 0.01 level

Results in table 2 show different correlation coefficient values for the five groups of questions (total value). From the result it can be concluded that there is a high degree of honesty in structural identification of the questionnaire. The results in tables 1 and 2 contribute to the acceptable validity of the study instrument. Further a reliability test was conducted on the data collected from the questionnaire. Alpha Cronbach reliability test was used. The results of the test presented in table 3 shows that the values of Alpha Cronbach are exceeding or close to 0.90. The high value close to one indicates the high reliability of the data collected from the questionnaire is highly reliable.

No	Groups (Functions)	No. of Questions	Cronbach's Alpha
1	Marketing	4	0.90
2	Human recourses	4	0.89
3	Finance	4	0.95
4	Operations	4	0.92
5	Quality	4	0.91

Table 3. Alpha cronbach reliability test for the five groups of questions

6.1 Classification of the Respondent Organization – Size and Sector

In the following section the results have been presented in tables 4 through 8. Table 4 presents the classification of Business Organization based on their size. The result shows that 75.7% of the organizations are large organizations as they have more than 500 employees. The rest of the categories are almost equally distributed with 8.6% have less than 100 employees, 8.6% have between 101 to 300 and 7.1% have 301 to 500 employees respectively. The size of the organization is important because it is more likely that larger organization will be using advanced techniques of management.

Table 4. Classifications of organizations by size

Size of Organizations by Number of Employees	Frequencies	%
Less than 100	6	8.6%
101 – 300	6	8.6%
301 - 500	5	7.1%
More than 500	53	75.7%
Total	70	100%

Table 5 presents the classification of the business organization based on the sector to which it belongs. The Organizations have been classified into three categories namely; Public / semi public, Private services/ Private manufacturing.

Table 5. Classifications of organizations by sector of activity

Type of Organization	Frequencies	%
Public or semi public	33	47.2
Private service	26	37.1
Private manufacturing	11	15.7
Total	70	100%

The results in table 5 show that the majority of the organizations under study are from public/ semi public sector. It shows that 47.2% of the companies are public/ semi public, 37.1% are private services, and 15.7% are from manufacturing sector. The result further shows that more than half of the respondent companies are from private sector (services and manufacturing).

6.2 Use of Benchmarking in the Five Functions

As proposed the study examines performance of five important business functions of organizations with its sub elements namely; marketing, human resources, finance, operations, and quality. In table 6 the results regarding these five major functions have been presented. These five major functions have been investigated in relation to their sub functions such as for Marketing; pricing, sales, goods and services, and advertisement, Human resources; salary scale, incentives, work environment, and training. In finance revenue, profit, financial ratios, and costs, in Operations; targets, planning and control, costs reduction, materials management and in Quality product specifications, quality systems, material specification and customer focus.

Functions	Sub Functions	Mean	Std. Dev.	Agreement	Rank
	Pricing	3.49	1.391	Often	1
Marketing	Sales	3.24	1.245	Sometimes	2
	Goods & Services	3.21	1.261	Sometimes	3
	Advertising	3.11	1.246	Sometimes	4
Total Marketing		3.26	1.102	Sometimes	
Human Resources	Salary Scale	3.27	1.227	sometimes	1
	Incentive's Scale	2.99	1.198	Sometimes	2
	Work Environment	2.89	1.136	Sometimes	3
	Training	2.89	1.210	Sometimes	4
Total Human Resour	rces	3.01	1.013	Sometimes	
	Revenue	3.26	1.282	Sometimes	1
Finance	Profit	3.26	1.337	Sometimes	2
	Financial Ratios	3.24	1.290	Sometimes	3
	Costs Allocations	3.11	1.161	Sometimes	4
Total Finance		3.22	1.136	sometimes	
	Targets	3.39	1.231	Sometimes	1
	Planning & Control	3.36	1.143	Sometimes	2
Operations	Costs reduction	3.09	1.248	Sometimes	3
	Materials Management	3.07	1.231	Sometimes	4
Total Operations		3.23	1.029	Sometimes	
	Product Specifications	3.23	1.321	sometimes	1
Quality	Quality Systems	3.11	1.389	sometimes	2
	Materials Specification	3.11	1.269	sometimes	3
	Customer Focus	3.11	1.399	sometimes	4
Total Quality		3.14	1.157	sometimes	

Table 6. The use of benchmarking in the five functions

The scale is (5) always, (4) often, (3) sometimes, (2) rarely and (1) never.

The results of the study show that benchmarking in marketing is not very popular in the business organizations of Saudi Arabia. From among the four elements of marketing pricing is often benchmarked (mean 3.49; Std. Dev. 1.39) in comparison to other elements which are bench marked sometimes only. In order of ranking pricing is on the top followed by benchmarking of Sales (mean 3.24; Std. Dev. 1.245), Goods and services (mean 3.21; Std. Dev. 1.261), and Advertising (mean 3.11; Std. Dev. 1.227). The overall Marketing function is benchmarked sometimes only (mean 3.26, Std. Dev. 1.102). The result of marketing function is followed by the results of benchmarking Human Resource functions.

The results in table 6 show that the benchmarking of human resource functions is again not very popular in the business organizations of Saudi Arabia. The analysis of human resource function is based on the following four elements namely; Salary scale, Incentives' scale, work environment, and training. The results show that salary scale is sometimes benchmarked (mean 3.27; Std. Dev. 1.227) followed by the benchmarking of Incentives Scale (mean 2.99; Std. Dev. 1.198), work environment (mean 2.89; Std. Dev. 1.136), training (mean 2.89; Std. Dev. 1.210). The overall benchmarking in human resource stands at sometimes (mean 3.01, Std. Dev. 1.013). The result of benchmarking human resource function is followed by the analysis of finance function.

The third function analyzed was finance function. The finance function was analyzed on the basis of following elements namely revenue, profit, financial ratios, cost allocations. The benchmarking in finance functions is also sometimes where the revenue and profit took the lead at (mean value 3.26 Sdt.Dev.1.282; and mean 3.26 and Std. Dev. 1.337 respectively) followed by financial ratios (mean 3.25 Std. dev. 1.290) and cost allocation (mean 3.11,

Std. Dev. 1.161).

The next important function analyzed was benchmarking of operations functions. From among the four elements namely target, planning and control, cost reduction, and materials management, considered for analysis targets is one the top (mean 3.39; Std. Dev. 1.231) in terms of benchmarking in comparison to other elements. Benchmarking of targets is followed by planning and control (mean 3.26; Std. Dev. 1.143) followed costs reduction (mean 3.09; Std. Dev. 1.248), followed by Material management (mean 3.07; Std. Dev. 1.231). However, the result for overall benchmarking of the operations functions is sometimes (mean 3.23; Std. Dev.1.029).

The last function analyzed was quality functions of business organization. Again the result shows that the overall bench marking is quality issues is done 'sometimes'. From among the four elements of quality benchmarking product specification is on the top (mean 3.23; Std. Dev. 1.321) followed by quality systems (mean 3.11; Std. Dev. 1.389), Materials specification (mean 3.11; Std. Dev. 1.269) and last is the benchmarking of customer focus (mean 3.11; Std. Dev. 1.399).

When compared to each other the benchmarking of major business function namely the marketing, human resource, finance, operations, and quality in business organization of Saudi Arabia, all the five are benchmarked 'sometimes'. However, on an overall basis benchmarking in marketing function is on the top (mean 3.26; Std. Dev. 1.102). Benchmarking in marketing function is followed by benchmarking in operation function (mean 3.23; Std. Dev. 1.029), finance function (mean 3.22; Std. dev. 1.136), Total quality (mean 3.14; Std. Dev. 1.157), and the last in comparison is benchmarking in Human Resource functions (mean 3.01; Std. Dev. 1.013). Thus from the results it is safe to say that the business organization in Saudi Arabia are only 'sometimes' benchmarking on the basis of size and sector has been presented. The differences between the organizations use have been analyzed with ANOVA analysis and the results tested through F test.

6.3 Benchmarking in Organizations by Their Sizes

As mentioned in the methodology the business organizations have been grouped into four groups based on their size. The sizes of the organization were determined based on the number of employees employed. The four sizes were organizations with more than 500 employees, from 301 - 500, from 101 -300, and less than 100 employees. Table 7 presents the results of the analysis based on the size of the organizations.

Fields		Sum of Squares	df	Mean Square	F	Sig.
Marketing	Between Groups	0.77	3	0.26		
	Within Groups	83.09	66	1.26	0.204	0.893
	Total	83.86	69			
Human	Between Groups	2.64	3	0.88		
Resources	Within Groups	68.11	66	1.03	0.852	0.470
	Total	70.75	69			
Finance	Between Groups	0.81	3	0.27		
	Within Groups	88.30	66	1.34	0.202	0.895
	Total	89.12	69			
Operations	Between Groups	0.81	3	0.27		
	Within Groups	72.34	66	1.10	0.246	0.864
	Total	73.14	69			
Quality	Between Groups	2.35	3	0.78		
	Within Groups	89.97	66	1.36	0.574	0.634
	Total	92.32	69			
Bench	Between Groups	0.45	3	0.15		
Marking	Within Groups	54.36	66	0.82	0.182	0.908
	Total	54.81	69			

Table 7. Analysis of variance (ANOVA) for size of organizations

Table 7 analyzed the benchmarking of major business functions in organizations of different sizes of firms. It shows that there is no significant differences between firms under study in performing benchmarking based on the sizes of such firms. Hence, the sizes of the organizations by number of employees do not have any significant role in use of benchmarking (The F value for overall benchmarking .182 at 0.908 significance level).

6.4 Differences between Organizations by Sectors

The researcher investigate the possibility of difference between the organizations under study based on their four sectors of activities, ANOVA is used (between groups, within groups and total). Results of this statistical test are shown in Table 8.

Fields		Sum of Squares	df	Mean Square	F	Sig.
Marketing	Between Groups	24.16	2	12.08	13.555	0.000**
	Within Groups	59.70	67	0.89		
	Total	83.86	69			
Human	Between Groups	2.52	2	1.26	1.236	0.297
Resources	Within Groups	68.23	67	1.02		
	Total	70.75	69			
Finance	Between Groups	11.28	2	5.64	4.856	0.011*
	Within Groups	77.83	67	1.16		
	Total	89.12	69			
Operations	Between Groups	11.09	2	5.54	5.984	0.004**
	Within Groups	62.06	67	0.93		
	Total	73.14	69			
Quality	Between Groups	7.03	2	3.52	2.762	0.070
	Within Groups	85.29	67	1.27		
	Total	92.32	69			
Benchmarking	Between Groups	9.36	2	4.68	6.901	0.002**
	Within Groups	45.45	67	0.68		
	Total	54.81	69			

Fable 8. Analysis of variance	(ANOVA) for	sector of activity
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* The mean difference is significant at the 0.05 level

** The mean difference is significant at the 0.01 level

Table 8 shows the results of the ANOVA test that examines the difference, if any, between the organizations based on the sectors (Government/Semi Government, Private Services and Private Manufacturing) in benchmarking of their major business services. The result shows that there are significant differences between private companies (manufacturing and service) and public companies in performing benchmarking for marketing (0.000), finance (0.011) and operations (0.004). However, there are no significant differences between the private and public sectors in performing benchmarking for the other two functions, namely; human resources and quality. The use of benchmarking in quality is very close to the significant level (0.070). Perhaps organizations are not much aware of benchmarking human resources management.

7. Discussions and Conclusion

The study proposed to meet four objectives through its investigation. The main objective was to explore the extent of performance benchmarking practices in the major functions within the organizations in Saudi Arabia. The results (table 6) show that the organizations in Saudi Arabia only 'Sometime' benchmark their business functions. Only one element namely 'pricing' within marketing function is often benchmarked. Rest all the elements in all the major functions namely Marketing, Human Resource, Finance, Operations, and Quality are

only sometimes benchmarked. When compared to each other in totality Marketing takes the lead mean 3.36 followed by Operations mean value 3.23, Finance mean value 3.22, Quality mean value 3.14, and last Human Resource mean value 3.01.

The second objective of the study was to examine the differences, if any between the different sizes of organizations in performing benchmarking in the country. The results (table 7) of the study shows that the size of the organizations based on the number of employees working in the organization do not differ in benchmarking of their major business functions.

The third objective of the study was to assess the difference, if any between the private companies and government organizations in the execution of benchmarking of major business functions. The results (table 8) of the study show that the organizations on the basis of their sector significantly differ in benchmarking of their major business functions. The private companies and public companies significantly differ in benchmarking of the three major functions namely Marketing, Operations, and Finance. Total use of benchmarking in all functions was examined by using Scheffee's method on this regard (Note 1). This method concluded that there is a significant difference (Sig = 0.002) where F= 6.901 between private and government organizations. This significant difference is in the favor of the private companies (manufacturing and service) over the government organizations. It means that private companies benchmarking in general is better than those of the government organizations. Therefore, it may be concluded that the Saudi private sector is implementing benchmarking as a tool for TQM better than the public agencies in the country.

8. Recommendations

1) Organization of all types should consider benchmarking as a critical tool in competing in the international arena. In Saudi Arabia, the market is open and all products are coming to the country from all over the world.

2) Private companies in both manufacturing and service sectors should have systematic, documented and well prepared benchmarking programs.

3) Private-service firms may find continuous improvement opportunities in using benchmarking especially in fields such as tourism industries, hotel and self-catering services, telecommunication services, electricity and hospital and health services.

4) Governmental agencies might find a great help from using benchmarking with the best world practices in the critical services provided to the public. On that regard, there are plenty of fields that can be benchmarked against best world practices such as customs services, passports services, traffic regulations and organizations, building codes, airport services and so forth.

5) ISO organization and other accreditation and standardizations agencies might find it necessary to create a standard especially tailored for benchmarking similar to ISO 14001 of the environment or ISO 22000 of the food safety.

9. Limitation of the Study

This study is limited to questionnaire as an instrument for data collection and further investigation using interviews can obtain insight to the subject. The study is also limited to those 70 respondents and a greater number of respondents will provide stronger generalization and representation f results. Also, it is limited to the time of the study and further research may be necessary to explore the subject.

10. Further Research

Future studies should consider the use of other means of data collections especially using interviews in order to give insight to the subjects. Moreover, there is a need for greater sample that exceeds the number used in this study in order to ensure greater representation. Any future studies may include some other business functions that are not included in this research and may also include some other sub-functions that would provide greater details of the subject of benchmarking. The relation of benchmarking to quality management systems and especially ISO 9001 may be investigated.

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Note

Note 1. Scheffe's method is used for adjusting significance levels in linear regression analysis account for multiple comparisons.