



Competitive Advantage Through Benchmarking: Field Study of Industrial Companies Listed in Amman Stock Exchange

Murad Salim Attiany

Department of Business Administration Middle East University (MEU) Amman – Jordan

Email: mattiany@gmail.com

Abstract

Nowadays, change is an inevitable factor in the development of any organizations, and can be adapted, adopted, piloted through benchmarking in order to compete in this competitive business environment. This research investigate the impact of different types of benchmarking in achieving competitive advantage. The study also asses benchmarking application at the Jordanian industrial companies listed in Amman Stock Exchange (ASE). The data collection instrument used was a questionnaire which was administrated and distributed to a total sample of (228) managers at the headquarter of (38) companies at the rate of (6) questionnaire for each. The response rate was (80%) while (75%) was usable questionnaires. The data were analyzed using statistical methods such as reliability (Cronbachs Alpha), normality Kolomogrov-Simirnov (K-S), correlation between independent and independent variables, simple and multiple also employed to predict the impact of benchmarking in achieving competitive advantage. The research finding supported the hypotheses that benchmarking has a significant and positive impact on achieving competitive advantage. The finding also showed that Jordanian industrial firms applied benchmarking approach to learn from others.

Keywords: *Benchmarking, Competitive Advantage (CA), Amman Stock Exchange (ASE)*

Introduction

Many companies today are striving to create competitive advantage based on environmental issues. Benchmarking data can use to evaluate corporate financial and market performance. Benchmarking is a systematic method by which organization can measure themselves against the best industry practices, benchmarking promotes superior performance by providing an organized framework through which organizations learn how the "best in class" do things, understand how these best practices differ from their own, and implement change to close the gap, the essence of benchmarking is the process of borrowing ideas and adapting them to gain competitive advantage (Besterfield et al., 2003). Benchmarking has become increasingly important that creates new competing opportunities. What was a theoretical process years ago is now a competitive weapon. Competitive advantage gives the firms an edge over the rivals and ability to generate greater value for the company. The more sustainable the competitive advantage, the more difficult it is for competitors to neutralize the advantage. Competitive advantage involved a particular choice regarding to the market in which firms would compete,

depending on market share in clearly segment using price and product performance attribute (Barney, 2002). So It has become an important issue to investigate the impact of different types of benchmarking on achieving competitive advantage.

Benchmarking Defined: Benchmarking has been defined in various ways. Rank Xerox, for example, who pioneered the art of benchmarking in the West in 1979, have defined it as follows (Camp, 1989): The continuous process of measuring our products, services, and business practices against the toughest competitors or those companies recognized as industry leaders. Also The concept of benchmarking has been discussed intensively in business strategy. Many scholars defined benchmarking, such as Besterfield et al (2011) stated that benchmarking is the systematic search for best practices, innovative ideas, and highly effective operating procedures to learn from others what they do right and then imitate it to avoid reinventing the wheel. Goetsch and Davis (1997) also suggested that benchmarking is a tool that helps in continuously monitoring the processes in the organization, and also helps in learning and adopting the best practices of the best-in class organizations. The benchmarking exercise relies on the design and execution of a series of tests for the verification of technological systems, rationalization through comparisons and final selection according to customer needs (Zairi, 1992). Anand and Kodali, (2008), argue that benchmarking is defined in various ways by different authors the benchmarking technique includes measurement, comparison, identification of best practices, implementation and improvement. Attiany (2009) defined benchmarking as a systematic approach through which organizations can measure their performances against the best-in-class organizations and it is a powerful and effective tool to learn from other in order to get the excellence. Traditionally, benchmarking involved the particular instrument to help companies to develop the strength and reduce their weaknesses (Oakland, 2003; Van Schalkwyk, 1998).

History of Benchmarking: Benchmarking is an external focus on internal activities, functions, or operations in order to achieve continuous improvement. Benchmarking history started in 1912, a curious Henry Ford watched men cut meat during a tour of a Chicago slaughterhouse and Carcasses hung hooks mounted on a monorail where after each man performed his job the carcass was moved to the next station. This helped Ford Highland Park Plant be the world's first producer of magnetos. They have imported the idea from another industry (Attiany, 2009).. Benchmarking was begun in the late 1970s by Xerox Corporation. During this time, Xerox was losing market share and feeling a lot of pressure from its competitors. In an attempt to try and "get back into the game", Xerox decided to compare its operations to those of its competitors. After finding quality standards with which to compare itself, Xerox began one of the greatest trends in the business world today (McNair and Leibfried, 1992). By 1983, Xerox had benchmarked more than 230 process performance areas in their operation. They looked at all aspects of their business. Identifying the best processes used by others, Xerox adapted them for their own use. This is how they regained their core competency and strategic advantage in the photocopying industry (Brogan,1994).Later the Xerox executives have credited the techniques that helped the company improve their performance and helped them to cope with other Japanese competitors. In the later years the importance of using benchmarking has been realized by the government of United States and was awarded with the prestigious Malcolm Baldrige National Quality Award. In the early 80's and 90's benchmarking techniques was considered as a popular total for quality management help the managers to think about more innovative ways and methods to improve the performance.

Benchmarking process: Benchmarking process is a continuous process which is a step wise procedure. The basic ten steps of the benchmarking technique are described by Xerox which clearly defined process for benchmarking: 1) Identify benchmarking subject, 2) Identify comparative companies, 3) Determine data collection method and collect data, 4) Determine current competitive gap, 5) Project future performance, 6) Communicate findings and gain acceptance, 7) Establish functional goals, 8) Develop action plans, 9) Implement plans and monitor progress, 10) Recalibrate benchmark. (Bendell, & Kelly 1993).

Competitive Advantage: competitive advantage is an advantage gained over competitors by offering customers greater value, either through lower prices or by providing additional benefits and service that justify similar, or possibly higher, prices. There is no single agreed definition of competitive advantage it can be viewed as the unique position that the firm develops in comparison with competitors, The term ‘competitive advantage has been discussed intensively in business strategy. Many researchers has defined the concept of competitive advantage, such as Barone, & DeCarlo (2003), stated that building sustainable competitive advantages revolves around differentiating a product from the competition along attributes that are important and relevant to customers. Li et al. (2006) defined competitive advantage is the capacity of an organization to create and maintenance defensible position over its competitors. Barney (2002) also suggested that competitive advantage obtained by the firm when its actions in an industry or market created economic value and few competing firms are engaging in similar actions. Furthermore, Tracey et al. (1999) argue that competitive advantage comprises of distinctive competencies that sets an organization apart from competitors, thus giving them an edge in the marketplace (Thatte, 2007). Traditionally, competitive advantage involved the particular choice regarding the market in which a firm would compete. Based on these studies there are two forms of competitive advantage: cost advantage and differentiation advantage (Porter 2004). Cost advantage exists when a company provides the same products or services as competitors, but at a lower cost. A differentiation advantage exists when a company can provide greater value at the same cost or lower than competitors. Competitive advantages can be created through innovation, efficiency, quality, and customer responsiveness.

Types of benchmarking: According to Andersen (1999), there are two main categories of benchmarking types, which can be defined, based on whom it is compared against, and what is being compared.

1. Compare against whom such as:

- **Internal benchmarking**, comparison against the best within the same organization or corporation, often called benchmarking within your own class.
- **Competitive benchmarking**, comparison against the best direct competitors, which then can be termed benchmarking against someone in the parallel class.
- **Functional benchmarking**, comparison against organizations that are not necessarily competitors, but that performs related tasks within the same technological area. this will be benchmarking against someone from another school, but of the same type.
- **Generic benchmarking**, comparison against the best, regardless of industry or markets, which can be said to be benchmarking against someone from a totally different school.

2. Comparing what:

- **Performance benchmarking**, comparison of pure key figures or other performance measures. .

- **Process benchmarking**; where we go beyond performance measures and also compares how business processes are performed, not only how well they are performed.
- **Strategic benchmarking**, comparison of strategic decisions and dispositions at a higher level. This is really a less frequently used variant of benchmarking..

Related Literature:

Many previous studies have been focus on the role of benchmarking in achieving competitive advantage or continuous improvement. It is widely argued that Benchmarking is the process of understanding what is important for organization success, through deciding what to be benchmarking, understanding current performance, planning, studding others, learning from data, and using the findings. (Besterfield, 2003). Most of studies emphasizes the importance of applying benchmarking. Attiany (2009) found high correlation between the benchmarking and continuous product and process improvement in the Jordanian pharmaceutical firms. 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 practices need not necessarily be of the same marketed product type (Camp, 1989). 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. y. 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 et al., 2006) . Benchmarking has gained acceptance worldwide as an instrument of continuous improvement in the context of total quality management and as a means of enhancing competitiveness (Carpinetti & Melo, 2002). Auluck (2002, p. 1) proposed that benchmarking and the learning organization ideal as “institutional fairy godmothers”, which offer potential to improve organizational performance in the public sector”. in this regard, benchmarking is said to have reached maturity within the UK, with over 60% of UK companies claiming some involvement. Zairi and Ahmed (as Quoted by Auluck, 2002, p. 115) noted that benchmarking is reported to be the third most popular management technique worldwide and the fourth in the UK between 1992 and 1996. Watson (1993) stated that benchmarking has moved from being an art to a science. Geber (1990: 36) focuses on the significance of looking at best practices in his definition of benchmarking as follows: ‘a process of finding the world-class examples of a product, service or operational system and then adjusting your products, services or systems to meet or beat those standards. Andersen (1999) found that competitive benchmarking can be useful when comparing performance levels and/or strategies. Process benchmarking against competitors is on the other hand very difficult and will rarely be viable due to problems related to exchanging detailed and sensitive information about business processes. Also he found that Functional and generic benchmarking produce the highest value when combined with process benchmarking. Comparing performance measures and strategic decisions with companies that are very different is of limited relevance. Studies have shown that the best results are generally achieved by a combination of process benchmarking and partners from other industries, i.e., functional or generic benchmarking.

Study Objectives and Aims

Many industrial companies in the worldwide are beginning to look at benchmarking as a tool to help them to achieve better result for less, benchmarking is a systematic search for best practices that lead for superior performance. Deriving from this context, the objectives of the study are: (1)

Provide an overview benchmarking technique. (2) Identify the level of applying benchmarking in Jordanian manufacturing companies listed in Amman stock exchange. (3) Estimate the impact of using benchmarking in achieving comparative advantage

Importance of Study

The importance of this study is that helped the management of Jordanian manufacturing companies listed in Amman stock exchange to understand the importance of applying benchmarking as a tool to achieve competitive advantage. This piece of work shall contribute to the academic community as there is not much literature available on the benchmarking in Jordan.

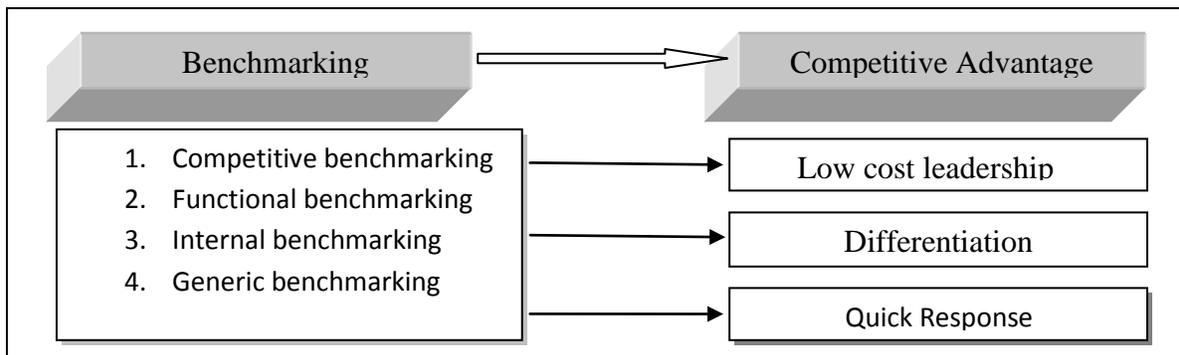
Problem Statement

Benchmarking has a very powerful potential and it can be used as a valid strategy to learn from others in order to achieve competitive advantage. International companies achieve higher rank than Jordanian manufacturing firms, which shows the problem of why Jordanian industrial firms did not achieve a higher level than it did achieve currently. Thus we will go in-depth to investigate the types of benchmarking applied particularly in the Jordanian industrial firms, which are: Competitive benchmarking, functional benchmarking, internal benchmarking, and generic benchmarking.

Study model

Based on the above literature review, study purpose and study objectives, research framework can be drawn as follow:

Study Model: The model (Model 1) establishes direct, positive relation between Benchmarking and competitive advantage



Model (1): The Study Model: the Relationship between Benchmarking and Competitive Advantage

Study Hypothesis

This study investigates the impact of benchmarking in achieving competitive advantage. Based on the figure (1), the different type of benchmarking has a positive impact on low cost leadership. Thus, the following hypotheses will be tested:

H1: Benchmarking has a significant and positive impact on low cost leadership.

H1a: Competitive benchmarking has a significant and positive impact on low cost leadership.

H1b: Functional benchmarking has a significant and positive impact on low cost leadership.

H1c: Internal benchmarking has a significant and positive impact on low cost leadership.

H1d: Generic benchmarking has a significant and positive impact on low cost leadership.

Based on the study model no. (1), the researcher proposed benchmarking that consist of: Competitive benchmarking, functional benchmarking, internal benchmarking and generic

benchmarking has a significant and positive impact on differentiation. Therefore, the following hypotheses will be tested

H1 : Benchmarking has a significant and positive impact on differentiation

H1a: Competitive benchmarking has a significant and positive impact on differentiation

H1b: Functional benchmarking has a significant and positive impact on differentiation.

H1c: Internal benchmarking has a significant and positive impact on differentiation.

H1d: Generic benchmarking has a significant and positive impact on differentiation.

This research also examines the impact of different types of benchmarking in achieving quick Response. So the following hypotheses will be tested:

H1 : Benchmarking has a significant and positive impact on quick response

H1a: Competitive benchmarking has a significant and positive impact on quick response.

H1b: Functional benchmarking has a significant and positive impact on quick response.

H1c: Internal benchmarking has a significant and positive impact on quick response.

H1d: Generic benchmarking has a significant and positive impact on quick response.

Sampling and data collection

This study is based on the perspective of top and middle management working at the Jordanian manufacturing firms listed in Amman Stock Exchange (ASE). The primary data were collected using questionnaire survey which was developed and distributed to a total sample of (228) managers at the headquarter of (38) firms at the rate of (6) questionnaire for each company. The responds rate was (80%), while (171) questionnaires was useable which equal to (75%). Sample selection based on convenience sampling, The respondents were asked to indicate on a Likert scale of (1- Strongly disagree) (2- Disagree) (3- Neutral) (4- Agree) (5- Strongly Agree), on the extent to benchmarking types and competitive advantage. Several quantitative statistical methods have been used in this study, such as Kolomgrov _ Simrnov (K-S) to test the study variable normality, Cronbach's alpha was also used for the reliability of the research instrument, and other statistic methods also employed to test the study hypotheses such as: correlation, simple regression, and multiple regression.

Normal Distribution

Table (1) Kolmogorov–Smirnov Test (K-S), shows that all data for independent and dependent variables are normality distributed. Therefore, they are considered acceptable.

Table (1) One-Sample Kolmogorov-Smirnov Test

Item	Competitive	Functional	Internal	Generic	Cost	Differentiation	Quick Response
Mean	3.846	3.963	3.838	3.904	3.900	3.898	3.885
K-S	1.289	1.666	1.435	1.784	1.652	1.031	0.73
Sig (2 Tailed)	0.072	0.118	0.133	0.093	0.159	0.238	0.073

Reliability and Validity

Before applying statistical tools, testing of the reliability of the scale is very much important as its shows the extent to which a scale produces consistent result if measurements are made repeatedly. This is done by determining the association in between scores obtained from different administrations of the scales. If the association is high, the scale yields consistent result, thus, it is reliable. Cronbach's alpha is most widely used method. It may be mentioned that its value

varies from 0 to 1 but, satisfactory value is required to be more than 0.6 for the scale to be reliable (Malhotra, 2002).

Table (2) Cronbach's Alpha analysis

Cronbach's Alpha Test			The Overall Cronbach's Alpha Test	
Variable	Alpha	N of Items	Overall Reliability Statistics	
Competitive Benchmarking	0.735	5	Cronbach's Alpha	N of Items
Functional Benchmarking	0.757	5	0.845	35
Internal Benchmarking	0.784	5		
Generic Benchmarking	0.795	5		
Low Cost Leadership	0.821	5		
Differentiation	0.773	5		
Quick Response	0.794	5		

As shown in table no (2), the overall Cronbach's alpha test for dependant and independent variable are (0.845). While alpha for the seventh research variables were between (0.735) and (0.821) which registered acceptable.

Hypotheses Testing

For this study, multiple and simple regression analysis was performed to predict the impact of benchmarking on achieving competitive advantage

H1: Benchmarking has a significant impact on low cost leadership

Table (3) Model Summary in predicting low cost leadership

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.533 ^a	.284	.267	.42199

a. Predictors: (Constant), Generic, Competitive, Functional, Internal.

The Table (3) summary in predicting the low cost leadership shows a positive relationship between benchmarking and competitive advantage (R) is (0.533) R square is (0.284) and adjusted R square is (0.267), meaning that (26.7 %) of the variance in low cost leadership can be predicted by independent variables of benchmarking

Table (4) First hypothesis test

Hypotheses (1) <i>Benchmarking has a significant impact on low cost leadership</i>	T Calculate	Sig.	Result
<i>Competitive benchmarking has a significant impact On low cost leadership</i>	1.999	.047	Accepted
<i>Functional benchmarking has a significant impact On low cost leadership</i>	3.148	.003	Accepted
<i>Internal benchmarking has a significant impact On low cost leadership</i>	5.426	.000	Accepted
<i>Generic benchmarking has a significant impact On low cost leadership</i>	1.279	.203	Rejected

The result of regression analysis shows that Competitive benchmarking, functional benchmarking and internal benchmarking are significant in influencing low cost leadership as shown in table (4). This can be noticed by p-value is smaller than alpha value of (0.05), therefore the hypotheses were accepted. Also the result of regression analysis in table (4) shows that there is no significant impact of generic benchmarking on low cost leadership as the

significant level is above (5%), therefore this hypothesis is rejected. In theoretical perspective, the findings of this study confirm the truth theory of Andersen (1999), Carpinetti & Melo (2002), Attiany (2009), and the empirical finding of this study supports the finding of Henderson et al. (2006), and Luu et al. (2008).

H2: Benchmarking has a significant and positive impact on differentiation

Table (5) Model summary in predicting differentiation

Model	R	R ²	Adjusted R Square	Std Error
1	0.551	0.304	0,287	0.43054

The Table (5) summary in predicting the competitive advantage - differentiation shows that the correlation between the variables is (R = 0.551), where (R² =0.304), also table (5) shows that adjusted R square (0.287), meaning that (28.7%) of the variance in differentiation can be predicted by independent variables of benchmarking types (Competitive, Functional, Internal and Generic), which means that's the model is a very good fit to predict differentiation. The result of regression analysis shows that all of the four types of benchmarking has significant impact on in achieving competitive advantage – differentiation as shown in table (6) as all the factors significance level is less than (0.05).

Table (6) Second hypothesis test

<i>Hypotheses (2) Benchmarking has a significant impact on differentiation</i>	T Calculate	Sig.	Result
<i>Competitive benchmarking has a significant impact on differentiation</i>	3.201	.002	Accepted
<i>Functional benchmarking has a significant impact On differentiation</i>	4.417	.000	Accepted
<i>Internal benchmarking has a significant impact On differentiation</i>	5.538	.001	Accepted
<i>Generic benchmarking has a significant impact On l differentiation</i>	2.351	.020	Accepted

H3: Benchmarking has a significant impact on quick Response

To examine the third hypothesis, multiple regression analysis was uses by considering quick response as the respondent variable, and the four types of benchmarking (Competitive, Functional, Internal, and Generic) as the independent variables table (7) illustrates multiple regression analysis

Table (7) Third main and sub hypotheses test

Benchmarking has a significant impact on quick Response	T Calculate	Sig.	Result
Competitive Benchmarking has a significant impact on quick Response	2.310	.022	Accepted
Functional Benchmarking has a significant impact on quick Response	3.720	.007	Accepted
Internal Benchmarking has a significant impact on quick Response	4.137	.000	Accepted
Generic Benchmarking has a significant impact on quick Response	.331	.741	Rejected

The table (7) shows that the result of regression analysis that all benchmarking types has a significant and positive impact on quick response except generic benchmarking rejected, therefore it does not affect competitive advantage, which is contrary to study assumption.

Study Main Hypothesis: Benchmarking has a significant impact on competitive advantage

Table (8) study main hypothesis

Study main hypothesis	R	R Square	Adjusted R Square	Beta	F Calculate	Sig.	Result
Benchmarking has a significant impact on competitive advantage	0.737	0.543	0.541	.737	201.086	.000	Accepted

Table (8) shows that benchmarking has a significant impact on competitive advantage. The regression model showed a high level of fit, as reflected by R (0.737) and R^2 (0.543), which asserted that (54.1 %) of the explained variation in competitive advantage can be accounted from benchmarking. On the other hand, table (8) indicated the slope value of beta (0.737) for the regression line. This suggested that for a one unit increase in benchmarking can significantly predict a (0.737) increase in competitive advantage. As well as table (8) shows that the analysis of variance of the fitted regression equation is significant with F value of (201.086). This is an indication that the model is a good one. Since the p-value is less than (0.05), it shows a statistically significant impact of benchmarking on achieving competitive advantage at (0.95) confidence level. Therefore, the alternative hypothesis of a significant impact is accepted. Thus, benchmarking has a significant impact on competitive advantage in industrial companies listed in Amman stock exchange (ASE). This further supported the study hypotheses.

Results

The regression analyses results support the study hypothesis. The results showed clearly that benchmarking has a significant impact on achieving competitive advantage. However, this study found no significant influence of generic benchmarking in achieving low cost leadership and quick response. For hypothesis 1, this study found that Competitive, functional, and internal benchmarking has a significant impact on low cost leadership, while generic benchmarking does not affect low cost leadership, For hypothesis 2, this study found a significant impact of Competitive, functional, internal and generic benchmarking on diffraction. For hypothesis 3, this study found that all types of benchmarking has a significant impact on quick response except generic benchmarking the study does not found significant impact of generic benchmarking on quick response. These results meet with Andersen, (1999), and Barney (2002) results. Furthermore, the three types of benchmarking (competitive, functional, and Internal) are significant impact competitive advantage, meeting with Attiany (2009); McNair, et al., (1992),

Summary and Conclusion

This research discovered that, benchmarking process helps in the performance of the business by acquiring the external knowledge and applying it to the internal practices and process. Benchmarking is a significant tool can be used to learn from others, also helps the organization to compare processes and procedures with the best practices of the best-in class performer to improve the performance of the company in order to achieve competitive advantage so the art of benchmarking will no doubt gain more momentum as the quality movement becomes the approach to modern competitiveness. This research also confirms that benchmarking offers benefits such as cost saving, customer satisfaction, errors reduction and profit enhancement. Benchmarking is very important tool in making decisions for continuous improvement activities, the findings also showed that benchmarking helps the firms to shift the corporate mind-set from relative complacency to a strong sense of urgency for ongoing improvement to reach competitive advantage. The comparison process that is performed in the benchmarking is not the financial comparison but it's the comparison of the internal and external processes with the best practices of the benchmarking partner

References

- Anand, G., and Kodali, R. (2008). Benchmarking the benchmarking models. *Benchmarking, An international Journal*. 15(3), pp.257-291.
- Allard, S. and C. Holsapplc. (2002.) "Knowledge Management as a Key for e-Business Competitiveness: From the Knowledge Chain to KM Audit." *Journal of Computer Information, Systems*, 42:5.
- Andersen, (1999) Industrial benchmarking for competitive advantage, *Human Systems Management journal*, Vol. 18, Issue 3/4 .
- Attiany, M. (2009). *The role of benchmarking in Improving Institutional Performance of the Jordanian Pharmaceutical Firms*, PHD, dissertation, Not published, Arab academy for Banking and financial sciences, Amman, Jordan
- Auluck, R. (2002). Benchmarking: a tool for facilitating organizational learning. *Public Administration and Development*, 22(2), 109-2002
- Bendell, Boulter & Kelly. (1993). *Benchmarking for Competitive Advantage*. Pitman Publishing. London
- Barney, Jay B. (2002). *Gaining and Sustaining Competitive Advantage*, 2nd ed. Reading, Mass.: Addison-Wesley
- Barone, M.J. and DeCarlo T.E. (2003). "Emerging Forms of Competitive Advantage: Implications for Agricultural Producers." Midwest Agribusiness Trade Research and Information Center Research Paper 03-MRP 5
- Besterfeild, D. H., Besterfeild, C., Besterfeild, G. H.,& Besterfeild, M. (2003). *Total Quality Management*. (3rd ed.). Pearson, USA.
- Bogan, Christopher (1994), *Benchmarking Best Practices*, McGraw Hill, 1994.
- Callahan, Bogan. (2001). *Benchmarking in rapid time*. Pp. 28-30.
- Csmp, R.C. (1989). *Benchmarking: the search for industry best practices that lead to superior performance*, Milwaukee, WI, ASQC Quality Press.
- Carpinetti, L. C. R. & de Melo, A. M. (2002). What to benchmark? a systematic approach and cases. *Benchmarking, An International Journal*. 9(3), 244-255
- Codling, S. (1996). *Best Practise Benchmarking: An International Perspective*. Houston, Texas, USA: Gulf Publishing.
- Dell, C. (1993). Building on received wisdom. *Healthcare Forum Journal*, 36(1): 17-21.
- Geber, B. (1990) *Benchmarking: Measuring yourself against the best*. Training (November),36–44.
- Goetsch, David L. & Davis, Stanley B. (1997). "Introduction to Total Quality: Quality Management for Production, Processing & Services" (2nd ed.). Prentice-Hall, USA
- Henderson-Smart, C., Winning, T., Gerzina, T., King, S., & Hyde, S. (2006). *Benchmarking Learning and Teaching: Developing a Method*. *Quality Assurance in Education*, 14(2), 143-55.
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., and Rao, S. Subba (2006), "The Impact of Supply Chain Management Practices on Competitive Advantage and Organizational Performance", *Omega*, 34(2), pp. 107-124.
- Luu, V., Kim, S., & Huynh, T. (2008). Improving Project Management Performance of Large Contractors using Benchmarking Approach. *International Journal of Project Management*, 26(7), 758-769.
- Malhotra, N.K.(2002). *Marketing research: an applied orientation*, (3rd ed.). New Delhi : Pearson Education Asia.

- McNair, C.J. and Leibfried, K.H.J. (1992), *Benchmarking: A Tool for Continuous Improvement*, Oliver Wright, Essex Junction, VT.
- Oakland, J. S. (2003). *TQM: text with cases*. 3rd ed. Oxford: Butterworth-Heinemann.
- Porter, M. E. (2004). *Competitive advantage : creating and sustaining superior performance*. New York; London, Free Press.
- Thatte, A.,(2007), “*Competitive advantage of a Firm Through Supply Chain Responsiveness and Supply Chain Management Practices*”, Published PHD Dissertation. University of Toledo..
- Tracey, M., Vonderembse, M. A., and Lim, J. S. (1999), “Manufacturing Technology and Strategy Formulation: Keys to Enhancing Competitiveness and Improving Performance”, *Journal of Operations Management*, 17(4), pp. 411-428.
- Van Schalkwyk, J. C. (1998) ‘Techniques: total quality management and the performance measurement barrier’. *The TQM Magazine*, 10 (2), pp. 124–131
- Watson, G. H. (1993). *Strategic Benchmarking: How to measure company’s performance against the world’s best*. Wiley: Chichester.
- Zairi, M. (1992). The art of benchmarking: using customer feedback to establish a performance gap. *Total Quality Management*, 3, pp.177-178.
- Zairi, M. and P. Ahmed. (1999) Benchmarking Maturity as we Approach the Millennium? *Total Quality Management*, 10:4/5. July 1999. p. S810.