THE IMPACT OF TOTAL QUALITY MANAGEMENT ON COMPETITIVE ADVANTAGE OF PHARMACEUTICAL MANUFACTURING COMPANIES IN JORDAN

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Keywords: Total quality management, competitive advantage, pharmaceutical manufacturing companies, Jordan

Abstract: TQM is a general philosophy of management that attempts to enhance competitive advantage of organizations. This paper aims to investigate the impact of total quality management on competitive advantage of pharmaceutical manufacturing companies in Jordan. The data are collected from mid- to senior-level managerial employees of pharmaceutical manufacturing companies in Jordan. The data were analyzed using correlation and multiple regression analyses. The results indicate that, there is effect of the TQM practices on competitive advantage; customer focus has the highest impact on competitive advantage followed by People management and Leadership subsequently. And thus, total quality management is strategically and tactically important for gaining a competitive advantage. Therefore, organizations should be committed to TQM practices and their successful implementation.

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Introduction

Total quality management (TQM) had played a vital role in the development of management practices during the past two decades (Hoang Igel, and Laosirihongthong, 2006), where the basic ideas of total quality management developed in the mid-eighties of the twentieth century by a number of famous researchers like (Hackman and Wageman, 1995; Deming, 1986; Ishikawa, 1972). It is recognized that the TQM is not understood and clearly defined (Hackman and Wageman, 1995) since the common concept of TQM is that it is an integrated strategy to improve the quality of products and services of the organization (Waldman, 1994). TQM can be expressed as administrative philosophy, as it has become a favorite entry point for improving quality and productivity in organizations. Many terms were used to describe the general concept of total quality management, including “total quality control”, “total quality leadership”, “improve total quality program”, “continuous quality management”, and “total quality service” (Lemieux, 1996). Quality has become one of the most important engines to compete today, where the function of total quality management has become the critical determinant in the success and the continuation of industrial and service organizations in today
The impact of total quality management on competitive advantage of pharmaceutical manufacturing companies in Jordan

The fierce global competition and growing customer’s demand for better quality, make companies more aware that they should deliver a product and/or high-quality services to compete in the market successfully, in order to meet this global competition challenge, many facilities have invested substantial resources in the adoption and implementation of strategies of total quality management. It also has the ability to improve the organizational performance (Cook and Verma, 2002; Anderson and Sohal, 1999; Millen, Sohal, and Moss, 1999; Prajogo and Sohal, 2004), in addition previous practical research confirmed that the effective application of total quality management has led to improved job satisfaction for employees (Guimaraes, 1996; Ooi, Bakar, Arumugam, Vellapan, and Loke, 2007) as well as to reduce manufacturing costs and improve productivity (Garvin, 1983; Lam, 1996). This paper explores the impact of total quality management practices on competitive advantage of pharmaceutical manufacturing companies in Jordan. Specifically, the study focuses on the following question: What is the impact of total quality management practices on competitive advantage of pharmaceutical manufacturing companies in Jordan.

Theoretical background and research hypotheses

Origins and practices of total quality management

Some writers saw that the quality is not the result of the industrial era or the industrial revolution, but its roots extend to the eighteenth century BC, as well as what is known about (Pharaohs) accuracy and mastery of their work in building their temples, and what was left of evidence remain until our time, although the quality is very ancient, as noted above, however, even in our age, there is no master entirely about a unified concept of quality, while the concepts are varied according to the sector that belong to it. Although the literature of total quality management includes a rich set of business, there is no general consensus on the definition of quality. Researchers have disagreed about the idea of quality, as total quality management pioneers, such as Garvin (1983; 1987), Deming (1986), Ishikawa (1972) and Feigenbaum (1991), have their own definitions of the concept of quality and total quality management. Gee, Richards and Wortman (2000) defined total quality management as a strategic, regulatory and administrative way which seeks in the participation of all employees to increase profitability by ensuring customer satisfaction and employees and provide benefits to society.

Total quality management can be defined as a macro-management philosophy, that aims at improving constantly in all functions of the organization to produce and deliver goods or services in line with the needs of customers or their requirements in a better manner, and in less expensive, faster, safer, and easier way, compared to competitors, with the participation of all working under the leadership of senior management. Total quality management can be defined also as the commitment of all employees to continuous improvement of business processes to meet the needs and
requirements of customers (Lee and Chang, 2006). Garvin (1987) suggested a definition of quality in terms of multiple entry points, based on the product, the user, manufacturing and on value. He also identified eight qualities to measure product quality (Garvin, 1987), while Oakes & Westcott (2001) defined total quality management as a management style on improving the process and addressing the needs of clients, including rich analysis using the methods of quantitative and qualitative to continue quality improvement in all its dimensions. Sadikoglu (2008) opinion of total quality management is entire way to a continuous improvement of the products, services, people, processes, environment and employees to meet the needs of customers and access to the upper limit of profitability.

There were many opinions and ideas of the authors and writers on the practices of total quality management and its differences. It was described variously in the literature as "Practices" for example: Douglas and Judge (2001), Flynn Schroeder, and Sakakibara (1995) and as Black and Porter (1996) described it as "sensitive factors", Powell (1995) described it as factors, while Morrow (1997) described it as "principles", Detert et al. (2000) describe it as "values". The total quality management is a culture of the organization that is committed to customer satisfaction through continuous improvement, this culture varies from one country to another and from one industry to another, but it has basic specific principles that can be applied to ensure the greatest possible market share, increase profits and reduce costs (Kanji and Wallace, 2000). As well as Deming (1986) described fourteen principles for quality management to improve productivity and organizational performance. In addition, Ishikawa (1972) stressed on the importance of quality control to improve the overall map to predict cause and result for diagnosing of quality problems (Mitra, 1987).

In the same direction, Feigenbaum (1991) presented a concept of total quality control on an organization level and defined quality as "a comprehensive mix of characteristics of goods and service, marketing, engineering, industrial and maintenance, by which used goods and services meet customer expectations" (Mitra, 1987). The most important common divisor among previous quality improvement plans is the commitment of the administration, the presence of a strategic entrance to the quality system, quality measurement, process improvement, education and training, and removing the causes of the problems.

York and Miree (2004, p.291) defined TQM as groups of methods and management tools that focus on providing significant value to customers by identifying customer needs and respond to changes in the market, as well as focusing on improving the effectiveness of the processes that lead to produce goods or services. While Mele and Colurcio (2005, p.464) defined it as an order way of management that rely on processes and continuous improvement of the performance of the company by all human resources in order to satisfy the implicit and explicit expectations of the customers and other stakeholders.
Kaynak (2003, p.406) saw it as a management philosophy of continuous improvement for all functions of the organization; it can only be achieved when using the principle of total quality from the acquisition of resources for customer service after sale. Gee, Richardson and Wortman (2000) defined total quality management as a strategy, regulatory and administrative way that seeks for the participation of all employees to increase profitability by ensuring customer satisfaction, employees and providing benefits to society. While Oakes & Westcott (2001) defined total quality management as an administrative pattern to improve the process directed by the needs of customers, and includes rich analysis using quantitative and qualitative methods to continuous quality improvement in all its dimensions.

A number of researchers like Curkovic et al. (2000), Dean and Bowen (1994), Gobeli and Brown (1993), Sitkin et al. (1994) suggested an explanation of the principles of total quality management, which consists of three basic elements as the basis joint that specifically customer focus, continuous improvement and employee participation. They also adopted the definition of total quality management that explained by Ross (1995, p.1) as they are an integrated of all functions and processes within the organization to achieve continuous improvement of the quality of goods and services for the ultimate goal; which is customer satisfaction. Oakes & Westcott (2001) identified eight elements that can be considered essential for total quality management, these elements are of great importance, where companies can be translated directly to the core values or principles in their daily operations.

Antony et al. (2002) described eleven practices of the total quality management, namely: management commitment, quality management role, training and education, employee involvement, continuous improvement, suppliers’ partnership, product/service design, quality policies, quality data and reporting, communication to improve quality and customer satisfaction orientation. Sureshchandar et al., (2002) expanded in practices and reached to 12 main practices: senior management commitment, visionary leadership, human resources management, technical system, analysis and information system, calibration, continuous improvement, customer focus, employees satisfaction, union intervention, social responsibility, service capes and culture services.

The movement of ideal standards (benchmarking) aims at searching for best practices, study, apply and improve them. Zairi and Ahmed (1999) stimulated awareness of the management of the importance of total quality management as well as re-engineering of business operations and its continuous improvement techniques. A review of existing literature on total quality management and continuous improvement programs revealed (12) joint side which are: committed leadership, adoption of total quality management and communicate with it, customer relationships, calibration, increased training, an open organization, enabling employees, reset mental defective, flexible manufacturing and improvement of process and measurement. Brah et al.
in their study on total quality management and facilities performance in the services sector in Singapore, they reached to eleven practices for total quality management, which are: supporting senior management, focusing on customer, participation of workers, employees training, employees’ empowerment, suppliers quality management, process improvement, service design, quality improvement results, calibration, cleanliness and organizing.

**Competitive advantage**

Nowadays, the changing market needs impose a hard-fought competition in an attempt to understand and respond to these needs (Stalk, Evans, and Shulman, 1992). Competitive advantage refers to the comparative positional superiority in the marketplace that leads a firm to outperform its rivals (Porter, 1985). Competitive advantage has been defined in many different ways. According to Schendel (1978, p.25), competitive advantage is the unique position an organisation works hard to develop through its competitors. Competitive advantage is the ability of an organization to create a strong position over its competitors” (Li, Ragu-Nathan, Ragu-Nathan, and Rao, 2006, p.111). Competitive advantage reflects the ability of an organization to play a unique role and offer unique services and products in the market (Lewis, 2000).

The study and analysis of competitive strategy and the quest for competitive advantage necessarily have to focus on output rather than input concerns (Mathur, 1988; Czepiel, 1992; Bowman and Faulkner, 1997). A firm can achieve a differentiation advantage when customers consistently perceive its offerings as superior to those of its competitors (Porter, 1985). Porter (1985) said, in order to gain a unique competitive advantage, it must increase its service systems and offer more valuable products for its consumers. The role of competitive strategy is to deliver superior performance relative to competitors (Porter, 1980; 1985) by delivering superior value to the consumer in the relevant competitive market. The best way for a company to introduce more valuable products is to improve the quality of these products and provide them at the lowest possible prices (Yao Chin Lin and Ping Heng Tsai, 2009). Every company has to consider how to enter a market and then build and protect its competitive position.

The key to gaining competitive advantage is to add value to offerings more successfully than the competition, in other words to create and maintain superior customer value (Devlin, 2001). Grant (1991) believes that competitive advantage is chiefly due to richness in resources and capabilities (Colgate, 1998; Barney, 1986, 1991; Dierickx and Cool, 1989; Wernerfelt, 1984). The main differences between resources and capabilities are that resources are independent, simple and static, as opposed to capabilities that are collective, complex and dynamic (Gregorio Martín-de-Castro, José Emilio Navas-López, Pedro López-Sáez, and Elsa Alama-Salazar, 2006). The term “assets” has been given to resources and some researchers have used the term “strengths and weaknesses” instead (Amit and Shoemaker, 1993; Wernerfelt, 1984). A company has many resources (e.g. financial, human, organizational, physical, social and technological). These resources can be tangible (concrete; physical;
Total quality management and competitive advantage

Total quality management is considered as a source of competitive advantage (Powel, 1995; Hackman and Wageman, 1995; Douglas and Judge, 2001), it allows organizations to complete an increased level of its competitiveness and satisfy its customers, it is also a known sign of quality associated with cost and minimize waste time and effort. When implementing total quality management, the operational performance will improve. The Total Quality Management aims at obtaining competitive advantages, studies indicated that the application of total quality management enhances the competitiveness and improve customer satisfaction (Han, Chen & Ebrahimbou, 2007). Any decline in customer satisfaction because of the low quality of service may be the cause of a serious lack of success of the organization. Consumer awareness has increased with the high standards of quality of goods and services sourced from competitive trends, which led to higher expectations, so that meeting the needs of customers is still considered...
something competitive in economic terms, although the automation of processes can affect the way of providing services.

The recognition of total quality management as a source of competitive advantage spread widely around the world, especially in western countries. Today, there are only a few companies (especially in industry) can afford to ignore this concept (Dean and Bowen, 1994). The success of total quality management will improve the level of participation of workers, improve communication, increase productivity, improve quality, improve customer satisfaction, reduce costs resulting from poor quality and improve competitive advantage (Antony, Leung, Knowles, and Gosh, 2002), in addition, the strong competitive pressures have forced organizations to provide products and services of high quality in a way to attract and retain clients.

Thus, organizations applied total quality management to improve its position in the market, and based on the above the hypothesis of the study can be formulated as follows:

H: There is a statistically significant effect of total quality management on competitive advantage

Research model

Based on study hypothesis, the following theoretical framework, shown in Figure 1, was proposed in order to show the relationships among independent and dependent variables.

![Figure 1. Theoretical Model](image_url)

Research methodology

This section presents the research methodology used in this study. We describe the sample used, discuss how each of the variables included in the study is operationalized and finally present the statistical analysis.

Sample

The target population of this study was mid- to senior-level managerial employees of pharmaceutical manufacturing companies in Jordan. Survey data had been collected at the beginning of June 2012. The surveys have not
been coded and all participants have been kept anonymous. There have been 200 surveys mailed out to managers working in pharmaceutical companies.

**Table 1 Sample Characteristics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>111</td>
<td>73.8</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>26.2</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 25</td>
<td>2</td>
<td>0.16</td>
</tr>
<tr>
<td>25- less than 35</td>
<td>25</td>
<td>20.3</td>
</tr>
<tr>
<td>35- less than 45</td>
<td>65</td>
<td>52.9</td>
</tr>
<tr>
<td>45 and more</td>
<td>31</td>
<td>25.2</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>4.1</td>
</tr>
<tr>
<td>Bach</td>
<td>108</td>
<td>87.8</td>
</tr>
<tr>
<td>Higher education</td>
<td>10</td>
<td>8.1</td>
</tr>
</tbody>
</table>

One hundred and twenty three usable surveys were returned with a response rate of 61.5%. There were 12 (26.2 per cent) women and 111 (73.8 per cent) men. 0.16 per cent were below 25 years old, 20.3 percent were between 25 and 35 years old, another 52.9 per cent were between 35 and 45 years old, and 25.2 per cent were 45 years old and more. Finally, relating education, 4.1 per cent did hold a diploma degree, 87.8 per cent were bachelor degree, and 8.1 per cent were higher education degree, the summary of the sample characteristics shown in Table 1.

**Measures**

The constructs in this study were developed by using measurement scales adopted from prior studies. All constructs were measured using five-point Likert scales with anchors strongly disagree (= 1) and strongly agree (= 5). All items were positively worded. Total quality management practices (Leadership, People management, and Information and analysis) measures were adopted from Milé (2006). Customer focus measure was adopted from Ilker and Birdogan (2011).

Competitive advantage is defined as the capability of an organization to create a defensible position over its competitors. Competitive advantage measure was adopted from Ashish (2007).

**Reliability of the instruments**

This section presents the reliability of the total quality management practices and competitive advantage instruments. Reliability is tested using the Cronbach coefficient alpha. A coefficient alpha higher than 0.7 is considered to be good (Nunnally, 1978). The reliability coefficient (a) of each dimension of TQM was as follows: Leadership (77.79 per cent); People management (82.06 per cent), and Information and analysis (79.55 per cent), Customer focus
The impact of total quality management on competitive advantage of pharmaceutical manufacturing companies in Jordan—(87.97 per cent); and the reliability coefficients of Competitive advantage was (84.86 per cent). The results of the reliability are summarized in Table 2.

**Factor analysis**

A principal component factor analysis was conducted to validate the underlying structure of the total quality management practices and competitive advantage (Table 2). Results of the factor analysis indicated the existence of nine significant dimensions with eigenvalues greater than one.

<table>
<thead>
<tr>
<th>TABLE 2. FACTOR ANALYSIS OF THE STUDY VARIABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construct and item</strong></td>
</tr>
<tr>
<td><strong>Leadership</strong></td>
</tr>
<tr>
<td>Senior managers actively encourage change</td>
</tr>
<tr>
<td>High degree of unity of purpose throughout the firm</td>
</tr>
<tr>
<td>“Champion(s) of change” are effectively used</td>
</tr>
<tr>
<td>We proactively pursue continuous improvement</td>
</tr>
<tr>
<td>Ideas from production operators actively used</td>
</tr>
<tr>
<td><strong>People management</strong></td>
</tr>
<tr>
<td>The concept of the “internal customer” is well understood</td>
</tr>
<tr>
<td>We have wide training and development</td>
</tr>
<tr>
<td>Effective “top-down” and “bottom-up” communication</td>
</tr>
<tr>
<td>Employee satisfaction is formally and regularly measured</td>
</tr>
<tr>
<td>Employee flexibility, multi-skilling and training are actively used</td>
</tr>
<tr>
<td><strong>Information and analysis</strong></td>
</tr>
<tr>
<td>We have undertaken benchmarking of operating processes</td>
</tr>
<tr>
<td>We have undertaken benchmarking of technology</td>
</tr>
<tr>
<td>We have undertaken benchmarking of quality procedures</td>
</tr>
<tr>
<td>We have undertaken benchmarking of customer service</td>
</tr>
<tr>
<td>We have undertaken benchmarking of other firms’ product quality and procedures</td>
</tr>
<tr>
<td>We have undertaken benchmarking of other firms’ human resource practices and policies</td>
</tr>
<tr>
<td><strong>Customer focus</strong></td>
</tr>
<tr>
<td>We actively and regularly seek customer input to identify their needs and expectations</td>
</tr>
<tr>
<td>We involve customers in our product design processes</td>
</tr>
</tbody>
</table>
TABLE 2. FACTOR ANALYSIS OF THE STUDY VARIABLES

<table>
<thead>
<tr>
<th>Construct and item</th>
<th>Mean</th>
<th>SD</th>
<th>Factor Loading</th>
<th>Eigenvalue</th>
<th>% of Variance</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>We always maintain a close relationship with our customers and provide them with an easy channel for communicating with us</td>
<td>2.89</td>
<td>1.275</td>
<td>.924</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of new products which are developed by knowledge from customers is higher in last three years</td>
<td>2.93</td>
<td>1.323</td>
<td>.854</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We use clients’ complaints and grievances to improve our products</td>
<td>3.96</td>
<td>1.314</td>
<td>.655</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>3.64</td>
<td>.811</td>
<td>3.466</td>
<td>57.760</td>
<td>.8486</td>
<td></td>
</tr>
<tr>
<td>We are able to offer prices as low or lower than our competitors</td>
<td>3.96</td>
<td>1.141</td>
<td>.804</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We are able to compete based on quality</td>
<td>3.69</td>
<td>1.072</td>
<td>.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We offer products that are highly reliable</td>
<td>3.45</td>
<td>1.209</td>
<td>.824</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We offer high quality products to our customers</td>
<td>3.72</td>
<td>1.068</td>
<td>.791</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We deliver customer orders on time</td>
<td>3.85</td>
<td>1.033</td>
<td>.506</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We are first in the market in introducing new products</td>
<td>3.15</td>
<td>1.025</td>
<td>.700</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The KMO measure of sampling adequacy value for the items listed below (Table 3) indicating sufficient intercorrelations with the Bartlett’s Test of Sphericity was also found to be significant. These dimensions were four practices listed under total quality management namely Leadership (5 items), People management (5 items), Information and analysis (6 items), and Customer focus (5 items), respectively. And six items listed under competitive advantage.

TABLE 3. KAISER-MEYER-OLKIN AND THE BARTLETT’S TEST OF SPHERICITY

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kaiser-Meyer-Oklin Values</th>
<th>Bartlett’s Test of Sphericity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>Leadership</td>
<td>.707</td>
<td>.000</td>
</tr>
<tr>
<td>People management</td>
<td>.772</td>
<td>.000</td>
</tr>
<tr>
<td>Information and analysis</td>
<td>.748</td>
<td>.000</td>
</tr>
<tr>
<td>Customer focus</td>
<td>.847</td>
<td>.000</td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>.783</td>
<td>.000</td>
</tr>
</tbody>
</table>

Correlation analysis: Relationships between the variables

A correlation matrix was constructed using the variables in the questionnaire to show the strength of relationship among the variables considered in the questionnaire. According to Kline (1998), correlation matrix is defined as a set of correlation coefficients between a number of variables. SPSS version 7.0 was used.
As shown in Table 4, the correlation matrix indicates that total quality management practices were positively and moderately correlated with competitive advantage. The highest coefficient of correlation in this research between total quality management practices and competitive advantage is 0.620, which is below the cut-off of 0.90 for the collinearity problem. Thus, multicollinearity problem does not occur in this research (Hair, Anderson, Tatham, and Black, 1998). These correlations are also further evidence of validity and reliability of measurement scales used in this research (Hair et al., 1998).

There was a significant positive relationship between customer focus and competitive advantage ($r=0.570$, $n=123$, $p \leq 0.01$). The positively moderate correlation were for People management and competitive advantage ($r=0.558$, $n=123$, $p \leq 0.01$), and Information and analysis and competitive advantage ($r=0.352$, $n=123$, $p \leq 0.01$). The weakest correlation was for Leadership and competitive advantage ($r=0.335$, $n=123$, $p \leq 0.01$). In other words, the results indicate that the most important total quality management practices on competitive advantage was People management, which goes to prove that People management was perceived as a dominant total quality management practices; improvements in competitive advantage levels were significant.

### Data analysis

The statistical computer program used for the questionnaires data analysis was SPSS for Windows Version 11.0. Correlation studies were used to determine the relationship between total quality management practices and competitive advantage. TQM practices were regressed against competitive advantage. The multiple regression analysis was used to further explain the significance of the independent and dependent variables. The statistical significance difference targeted was .05 alpha levels which is typical in most research.

### Descriptive statistics analysis

Table 2 indicates that managers of pharmaceutical companies perceived Leadership (with the highest mean scores, i.e. $M=4.21$) to be the most
dominant TQM practice and evident to a considerable extent, followed by Information and analysis (M=4.07), People management (M=3.54), and Customer focus (M=3.24) which were all rated as lowest practices by managers of pharmaceutical companies. Regarding competitive advantage, the mean score was (M=3.64).

**Multiple regression analysis**

The hypotheses in this study test the four practices of TQM: Leadership; People management; Information and analysis; and Customer focus as the independent variables to determine if there is an impact on competitive advantage. Multiple regression analysis was employed to test the impact of TQM practices on competitive advantage.

The proposed model was adequate as the F-statistics (p-value = 0.000) was significant at the 5 percent level (p≤0.05). This indicated that overall model was statistically significant relationship between TQM practices on competitive advantage. From Table 5, it can be observed that the coefficient of determination (R²) was 0.417, representing that 41.7 percent of competitive advantage can be explained by the four practices of TQM.

<table>
<thead>
<tr>
<th>TABLE 5. REGRESSION SUMMARY OF THE IMPACT OF TQM PRACTICES ON COMPETITIVE ADVANTAGE (N=123)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unstandardized coefficients</strong></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Leadership</td>
</tr>
<tr>
<td>People management</td>
</tr>
<tr>
<td>Information and analysis</td>
</tr>
<tr>
<td>Customer focus</td>
</tr>
</tbody>
</table>

Notes: R² = .417; Adj R² = .398; Sig. F = .000; F-value = 21.136; dependent variable: Competitive advantage; p < 0.05

Regression analysis indicated that, Leadership had significantly positive effect on competitive advantage (p<0.05; β=.182). Thus, H1, proposing that Leadership is positively related to competitive advantage, was supported by this study. The other result is People management had significantly positive effect on competitive advantage (p<0.05; β=.331). Hence the hypothesis H2 was also supported by the study. The third result is Customer focus had significantly positive effect on competitive advantage (p<0.05; β=.341). Hence the hypothesis H3 was also supported by the study. Finally, Information and analysis does not significantly effect on competitive advantage (p>0.05; β=-.066). Based on the values, Customer focus has the highest impact on competitive advantage followed by People management and Leadership subsequently. Thus, there is effect of the TQM practices on competitive advantage.
The total quality management (TQM) system has been widely studied as a strategy able to provide companies with a competitive advantage (Martínez-Lorente, Dewhurst, and Gallego-Rodríguez, 2000). This study was set out to examine the impact of TQM practices on competitive advantage in pharmaceutical companies in Jordan. The findings show that Leadership, People management, Information and analysis, and Customer focus were found to be good predictors of competitive advantage in pharmaceutical companies in Jordan.

In terms of Leadership, it is found that Leadership does have a relationship with competitive advantage and it did affect competitive advantage in certain ways. Indeed Leadership is a necessary precondition for competitive advantage. It can be assure that Leadership does have association with competitive advantage that could enhance improve customer satisfaction, reduce costs resulting from poor quality and improve competitive advantage (Antony et al., 2002).

In terms of People management, the study shows that People management has positive effects on competitive advantage. It is found out that the higher applying of People management practice the more competitive advantage achieved. Furthermore, the management of an organization’s people and people’s satisfaction are crucial elements, which suggests that the workforce influences the total success of the organization.

In terms of Information and analysis. Information and communication can be enhanced using a proper communication system that can deliver accurate information which can be easily understood by all levels of employees. It is found that there is no significant effect of Information and analysis on competitive advantage. It is observed that Information and analysis does not contribute to competitive advantage because of lack in communication in pharmaceutical companies in Jordan. Organizational communication is a critical factor in organizations, for connecting employees and permitting organizations to function, as well as an essential element to the implementation of TQM (Gray and Laidlaw, 2002).

In terms of Customer focus, the study shows that Customer focus has positive effects on competitive advantage. It is found out that the higher applying of Customer focus practice the more competitive advantage achieved. Furthermore, Dean and Bowen (1994) argue that customer focus is the most important TQM principle. They suggest that the goal of satisfying customers is fundamental to TQM, and that this goal could be achieved by an organization’s attempt to design and deliver products and services that fulfil customer needs. Focusing on delivering customer value in implementing TQM, encourage managers to make the best use of their people and resources in order to create product that customer value (Chapman and Al-Khawaldeh, 2002). Specifically, such practices allow organizations to understand both the expressed and latent needs of their customers, and create customer value by sharing such information throughout the organization and enabling coordinated and focused actions to serve customer needs (Slater and Narver, 1995).
Conclusion and implications

TQM is a general philosophy of management that attempts to enhance competitive advantage of organizations, and is a way of managing organizations to improve its overall effectiveness and performance towards achieving world-class status (Zhang, 2000; Chapman and Al-Khawaldeh, 2002). This can be achieved through the Leadership, People management, Information and analysis, and Customer focus. In summary, the present study demonstrates that TQM practices enhance competitive advantage. The effect of TQM practices in these respects is of the utmost importance. So effective implementation of TQM can produce improvements in the area of competitive abilities and provide strategic advances in the marketplace. And thus, total quality management is strategically and tactically important for gaining a competitive advantage (Yang, Chen, and Su, 2003). Therefore, organizations should be committed to TQM practices and their successful implementation.

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