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Jordanian Pharmaceutical Companies: Are Their Marketing Efforts Paying Off?

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The pharmaceuticals industry is one of the main industries in Jordan. Jordanian pharmaceuticals rank third in the export industry of this country. This study aims to examine the strengths that Jordanian pharmaceutical companies have, which, in turn, form their competitiveness base. In addition, this study aims to identify their weaknesses and the effects of marketing their products in the local market. What is the relationship between Jordanian pharmaceutical product quality, price and value, and the competitiveness of pharmaceutical companies in the local market? Our study aims to answer this and other questions. Our results and practical implications are discussed.

KEYWORDS *Jordan, pharmaceuticals, price, quality, value*

Competitiveness is deemed one of the most important survival requirements for service and product providers. Competitiveness is no longer a success measure in our global economy with the fall of geographical barriers between global markets, but is considered a differential and vital resource (Porter, 1996). Studies indicate that competitiveness is an objective measure to gauge the differentiation of countries, their economic strength, and their ability to achieve well being for their people (Hsu, 1999). In this study, we try to concentrate on Jordanian pharmaceutical companies by studying their competitive advantage. The purpose of our study is to focus on revealing the Jordanian pharmaceutical companies' strengths and weaknesses. We also

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research the needs of consumers in Jordan and what is essential for Jordanian pharmaceutical companies to keep up with change in their regional and local environmental conditions. The study is focused on identifying what these companies need to ensure their survival in the long term and to maintain and achieve brand recognition in the Arabic and local markets.

JORDAN'S PHARMACEUTICAL INDUSTRY

The Jordanian pharmaceuticals industry is one of the main, vital industries in Jordan. Jordanian pharmaceutical demand size is influenced by many factors, such as increased health awareness and treatment quality rendered to individuals (Central Bank of Jordan, 1998).

The year 1962 is considered the beginning of the pharmaceutical industry in Jordan, when the first pharmaceutical company was established with capital amounting to (JD)150,000. By the mid 1970s, three new pharmaceutical companies were established, and in the 1980s three more companies joined the market. In the 1990s this sector witnessed a remarkable development resulting from the establishment of nine companies. This development was a direct result of capital inflow from the Gulf States due to the Gulf War, as well as from laws, procedures, and investment facilities that the Jordanian government developed to promote and facilitate investment (Amman Chamber of Industry, 2006).

Jordanian pharmaceuticals rank third in the export industry of this country. Jordan's pharmaceutical companies import raw, processed, and developed pharmaceutical materials from international markets such as the United States, China, and India. Pharmaceutical companies in Jordan do not produce any pharmaceuticals of their own, but 40% of their production depends on the franchising rights of foreign companies and the other 60% depends on licensing (Tashtoush, 2000).

Pharmaceutical industries are linked with issues concerning human life and health. Therefore, the World Health Organization (WHO), world committees, and international organizations persist in placing standards, regulations, systems, and rules that control pharmaceutical product quality. Technological and scientific advancements, as well as the communications revolution, have facilitated the trading of goods among countries and across regional borders (Friedewald et al., 2006). More specifically, the communications revolution resulted in the development of new marketing concepts and in the emergence of e-marketing. These advancements have resulted in the increase in availability of alternative pharmaceutical products in Jordan, especially after Jordan joined the World Trade Organization. This also forced Jordanian pharmaceutical companies to improve their products and marketing efforts due to intensive competition between Jordanian companies and foreign companies (Central Bank of Jordan, 1998).

An examination of Jordanian pharmaceutical companies concluded that there are many weaknesses the companies face. These weaknesses reduce their competitiveness compared with foreign companies in the local and Arabic markets. One weakness is the high average of labor turnover for the skilled technical labor force. Many skilled workers leave the place in which they trained and acquired their experience in order to seek other places that provide them with higher wages appropriate with their capabilities (Moala' & Tawfiq, 2005). Even though Jordanian companies sometimes struggle to compete with foreign pharmaceutical companies in terms of the use of technological marketing tools used to target consumers, Jordanian pharmaceutical companies have made tremendous progress in this area. To change consumers' perceptions many Jordanian pharmaceutical companies have designed elaborate advertising campaigns. Finally, facilitated and promoted by Jordan's trade laws, there are a large number of Jordanian pharmaceutical companies and importing foreign pharmaceuticals companies in Jordan. This increases the competition between domestic companies and forces a number of companies to leave this sector (Ministry of Trade and Industry, 2006).

FACTORS AFFECTING CONSUMER BEHAVIOR

Consumer's behavior affecting decision-making and product selection stems from both the study of economics and psychology. Therefore, the need emerges for a better in-depth study of the factors affecting consumer's behavior.

Attitudes

Attitudes refer to the accumulated experiences and internal feelings that are reflected or revealed if consumers have a positive or negative attitude regarding any product. Such attitudes are not observed directly, but can be drawn from consumer word-of-mouth or through analyzing and interpreting their behavior. Attitudes are formed through three functions (Shiffman & Kanuk, 2004).

BENEFIT FUNCTION

The benefit function is linked with the reward and penalty principal. Consumers develop their attitudes towards certain local or imported products upon the benefits they expect to obtain (Solomon, 2004). In addition, consumers form their attitudes towards companies on the basis of the advantages and benefits the company provides them. For instance, consumers might have a positive attitude toward a company if word-of-mouth was positive

regarding their products, their products enjoy a good quality reputation, and there is a demand for their products.

EXPRESSIVE VALUE FUNCTION

Consumers form their attitudes not towards a company and its reputation, but instead on the benefits it provides them in the form of expressive value to their personality and lifestyle (Shiffman & Kanule, 2004). In instances when differentiation is made between local products and imported products, local products often face market preference. This phenomenon is not limited to the Jordanian market but it is a phenomenon in most global markets.

KNOWLEDGE FUNCTION

Many patients have a strong need for new information and knowledge regarding the product in mind, as a result from this need attitudes toward the product are formed (Hawkins et al., 2004). Consequently, their attitudes towards a product will be reflected in the end on their purchasing behavior. Knowledge is one of the most effective factors in forming consumer attitudes and will consequently determine and direct their purchasing behaviors (Winer, 2004).

Consumer Self-Image

Self-concept refers to an individual's self-image in the course of finding an answer to the question: Who am I? An individual's idea about themselves is formed by unique skills that are obtained throughout their life, and is based on their formulation of their own psychological structure. Self-concept may be determined to a high extent through individual knowledge of others' views about them (Shiffman & Kanuk, 2004).

Pharmaceutical Products Perceived Value

Pharmaceutical perceived value is the basic determinant of strategic decision-making in product selection. An alternative evaluation is made by consumers and then a company's product is selected upon the value added that the consumers perceive (Lovell & Jochen, 2004). This value added forms the competitive advantage of pharmaceutical companies. Consumers that fail to distinguish the value provided by pharmaceutical companies often select lower-priced products. In such instances, price becomes the main determinant of the selection decision (Winer, 2004).

Product Quality and Company Reputation

As a response to the competition pressures, companies had to look for quality definition as a marketing tool to guide their marketing strategies. A company's strategic position and promotion of its rendered services introduces the company's image and services to consumers, the community, beneficiary parties, and shareholders (Lovelock & Jochen, 2004). Among the factors associated with quality are product originality and its quality in terms of level, content, method, and manner. These product attributes reflect the national personality or culture dependence and their association with the environment. Increased association between products and their country of origin results in the formation of consumers' value perceptions of the pharmaceutical products they use (Hawkins et al., 2004).

Financial and Nonfinancial Costs

Financial and nonfinancial costs the consumer incurs are the main factors that affect their behavior in choosing a product. Financial costs are the costs associated with the purchase of the pharmaceuticals and nonfinancial costs are those associated with the psychological and physical burdens. Consumers often select pharmaceutical products according to their financial capabilities (Hawkins et al., 2004).

Information Availability

Information provided by pharmaceutical companies to targeted markets is the main factor affecting consumer's attitudes, behaviors, and decision-making in selecting a company's pharmaceutical products. There are various resources the consumer depends on when selecting one company's products over another including leaflets, manuals issued by the companies, scientific conferences, care events, word-of-mouth and the Internet (Hawkins et al., 2004).

JORDAN PHARMACEUTICALS AND COMPETITIVENESS

Marketing managers in Jordanian pharmaceutical companies aim to improve their own company's performance and to advance it to an international company level by developing distinct competitive advantages. There are various methods that enable companies to achieve competitive advantage, such as using an information technology system to support their operations and activities. To achieve this goal companies have to reanalyze, re-evaluate, and reorganize their basic operations including research, engineering, marketing, and design. These processes have their own distinct inputs, outputs, and goals and are responsible for transferring theoretical research to the manufacturing of products and the delivery of services (Hsu, 1999).

Analyzing such operations in detail requires marketing managers to identify the problems, costs, and risks of their companies. Marketing managers also have the responsibility to identify creative opportunities and strategic decisions that will ensure the company's progress and the successful pursuance of their vision (Hsu, 1999).

COMPETITIVENESS

The term *competitiveness* accompanied the new business system as a natural result of increasing sale numbers and new entrants to the industrial sector. According to Schacht (1999), competitiveness is defined as a company's ability to produce products and services that satisfy tasks in global markets. Therefore, competitiveness can be defined as a company's ability to generate more wealth than its competitors in the global markets. It can be argued that there is a positive relationship between competitiveness, innovation, and market expansion. This is so since innovation is one of the most important competitive tools that contribute to satisfying consumer's needs. Moreover, competition leads to more innovation resulting in competitiveness supporting tools (Kiston & Michie, 1998; Chan, 1996; Deakin & Patten, 1999). We want to know if consumer perceptions of quality, price, and value really influence companies' competitiveness perceptions. In the past decade, marketing managers in Jordanian pharmaceutical companies have designed advertising campaigns aimed at improving quality, price, and value perceptions for their products. This study tries to examine if these efforts have in fact worked.

PREVIOUS STUDIES

There are limited studies that address the competitiveness of pharmaceutical companies in Jordan. A study by Naser (1990) aimed to show the importance of the pharmaceutical industry sector in Jordan. The study addressed Jordan's pharmaceutical industry development indicators represented by increasing the average growth of the value added, the labor force, the contribution of each work element, and the capital in the net added value. The findings indicated the importance of pricing policies, research and development, and marketing which form the total power sources in the Jordanian pharmaceutical industry.

A study by Rahahleh (1997) identified the most important factors that affect the foreign and local demand of Jordanian pharmaceutical products. The study concluded that the external demand determinants on Jordanian pharmaceutical companies are the relative prices, the Jordan Dinar exchange rate, and the negative effects of its competitiveness in foreign markets and exporting capability.

STUDY PROBLEM AND ITS ELEMENTS

The study aims to examine the strengths that Jordanian pharmaceutical companies have which, in turn, form their competitiveness base. In addition, this study aims to identify their weaknesses and the effects of marketing their products in the local market.

This can be achieved by answering the following questions:

1. What is the relationship between pharmaceutical product quality and the competitiveness of Jordanian pharmaceutical companies in the local market?
2. What is the relationship between pharmaceutical price and the competitiveness of the Jordanian pharmaceutical companies in the local market?
3. What is the relationship of consumers' perceived value of pharmaceuticals and the competitiveness of Jordanian pharmaceutical companies in the local market?

CONCEPTUAL DEFINITIONS

Core of Pharmaceutical Product

Core of pharmaceutical product refers to the pharmaceutical content of the product that Jordanian pharmaceutical companies provide to their clients. Such content is represented in the benefit set the patient seeks to obtain.

Perceived Value

Perceived value refers to the value or benefit the consumer obtains by purchasing the pharmaceutical product. The consumer evaluates the value and costs that are paid in order to obtain this value perception compared with what competitors provide (Kotler & Armstrong, 2004).

Product Quality

Product quality refers to the level of quality and the actual perceptions of the benefit consumers expect from the pharmaceutical products. Therefore, good pharmaceuticals from a consumer's perspective are those that agree and conform to their expectations.

RESEARCH MODEL

Figure 1 presents the research model showing the independent variables and the dependent variable that will be tested in this study.

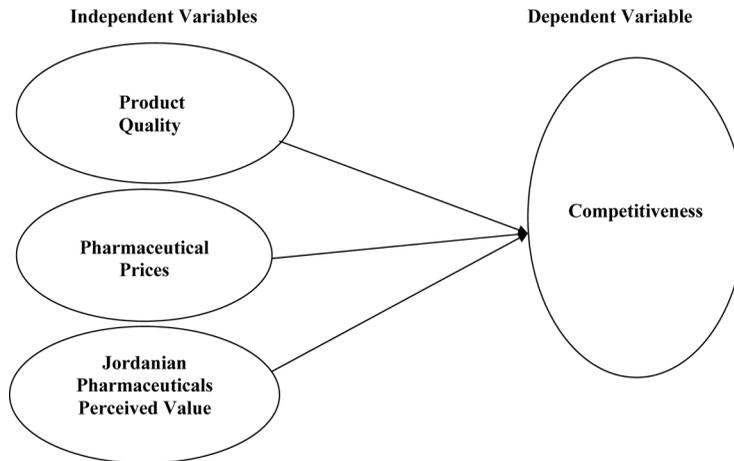


FIGURE 1 Research model.

HYPOTHESES

Based on the previously identified research questions the following hypotheses can be drawn:

- H1:* There is a positive statistical relationship between consumers' pharmaceutical product quality perceptions and the competitiveness of Jordanian pharmaceutical companies.
- H2:* There is a positive statistical relationship between consumers' pharmaceutical product price perceptions and the competitiveness of Jordanian pharmaceutical companies.
- H3:* There is a positive statistical relationship between consumers' perceived value of the pharmaceutical products and the competitiveness of the Jordanian pharmaceutical companies.

MEASURES, SAMPLE, AND PROCEDURE

All study questionnaire variables were measured by using a Likert scale to show the degree of agreement. Agreement degrees were divided into five categories: Category 1 represents very low, Category 2 represents low, Category 3 represents medium, Category 4 represents high, and Category 5 represents very high. Measures for perceived quality, price, and value have been validated and verified in several marketing studies. Our measures and method are based on studies by Sharma and Fisher (1997), Smida (2005), and Lerberg (2006). A random sample of patients who were receiving treatment in public hospitals in Jordan was selected by using the simple random sampling method. Three major hospitals in Jordan were selected including the King Abdullah the Founder Hospital, Princess Basma Hospital, and

TABLE 1 Distributed and Collected Questionnaires

Patients residing in hospital	Distributed questionnaires	Collected questionnaires	Response rate (%)
King Abdullah the Founder Hospital	65	50	77
Princess Basma Hospital	60	45	75
Prince Rashed Military Hospital	50	38	76
Total	175	133	76

TABLE 2 Sample Demographics

Demographic	Frequency	Percent
Gender		
Male	80	60
Female	53	40
Total	131	100
Educational level		
Less than secondary	28	21.1
Secondary	52	39
Diploma	10	7.5
BSc	30	22.6
MSc	10	7.5
PhD	3	2.3
Total	133	100
Individual income		
150–250	17	61.3
251–350	51	38.3
351–450	10	7.5
451–550	30	22.5
551–650	15	11.2
650+	10	7.5

the Prince Rashed Military Hospital. A total of 133 self-administrated questionnaires were collected from our participants. Table 1 summarizes response rates and Table 2 presents the demographics of our sample including gender, education, and income level.

RESULTS

To test the main hypotheses, a simple regression test was used to compute *t* values that measure the possibility of existing significant relationships between each independent variable and the dependent variable related to the hypothesis being tested. We want to know if consumer perceptions of quality, price, and value really influence companies' competitiveness perceptions. In the past decade, marketing managers in Jordanian pharmaceutical companies have designed advertising campaigns aimed at improving quality, price, and value perceptions for their products. This study tries to examine if

TABLE 3 Descriptive Analysis Results for the Independent Variable Regarding Consumers' Perceived Pharmaceutical Product Quality

Independent variable	<i>M</i>	<i>SD</i>	Frequency <i>M</i>	<i>t</i>	Sig. (two-tailed)	Result
Pharmaceutical product quality	3.96	0.58	0.79	19.122	0.002	Accept H1

these efforts have, in fact, worked by improving Jordanian pharmaceutical companies' competitiveness perceptions compared to their foreign counterparts in Jordan.

H1 stated that there is a positive statistical relationship between consumers' pharmaceutical product quality perceptions and the competitiveness of Jordanian pharmaceutical companies. The descriptive analysis results are shown in Table 3. The mean of frequency percent for the sample responses was 0.79 for responses ranging between *neutral* and *strongly agree*. Such a percent is high and exceeds 0.50, indicating the high degree of agreement. One sample *t*-test result showed that the (*t*) statistical significance regarding pharmaceutical product quality amounted to 0.002, which is less than $p \leq .01$.

Values in Table 4 explain the determination coefficient R^2 , which is interpreted as 82% of the change in Jordanian pharmaceutical companies' competitiveness is attributed to the increase of perceived pharmaceutical quality capability. There is a statistically significant relationship between the degree of perceived pharmaceutical product quality by Jordanian pharmaceutical companies and their perceived competitive capability. The analysis indicates the *F* is significant at the $p < .0001$ value. Based on the statistical results we can infer that there is a positive statistical relationship between consumers' pharmaceutical product quality perceptions and the competitiveness of Jordanian pharmaceutical companies. Therefore, H1 is accepted.

In Table 5, the data indicates there is a relationship between Jordanian pharmaceutical product perceived quality and their competitive capability.

H2 stated that there is a positive statistical relationship between consumers' pharmaceutical product price perceptions and the increment in competitiveness of Jordanian pharmaceutical companies. The descriptive analysis results shown in Table 6 indicate the sample agreement on the importance of pharmaceutical companies adopting pricing strategies that fit with their

TABLE 4 ANOVA Analysis Results Regarding Consumers' Perceived Pharmaceutical Product Quality

Independent variable	<i>df</i>	R^2	<i>F</i>	Sig.	Result
Pharmaceutical product quality	1	0.82	586.82	0.000	Accept H1

TABLE 5 Coefficients for Consumers' Perceived Pharmaceutical Product Quality

Independent variable	Unstandardized coefficient		Standard coefficient	<i>t</i>	Sig.	Result
Pharmaceutical product quality	0.271	0.011	0.904	24.30	0.000	Accept H1

product value for consumers. The mean of frequency percent for sample responses was 0.76. Such a percent is high and exceeds 0.50, indicating the high degree of agreement. The sample *t*-test results are statistically significant at the $p < .0001$ level.

Values in Table 7 show the $R^2 = 0.62$. Change in Jordanian pharmaceutical companies' competitiveness is attributed to pharmaceutical product price perceptions. In Table 8, the values indicate there is a statistically significant relationship between pharmaceutical product price perceptions and Jordanian pharmaceutical companies' competitiveness at the $p < .0001$ level.

H3 stated that there is a positive statistical relationship between consumers' perceived value of the pharmaceutical products and Jordanian pharmaceutical companies' competitiveness. The descriptive analysis results shown in Table 9 indicate the sample agreement on the importance of pharmaceutical products perceived value. The mean of frequency percent for sample responses was 0.77. This percentage is high and exceeds 0.50, indicating a high degree of agreement. Results from a *t* test showed that the relationship is statistically significant at the $p < .0001$ level.

Table 10 shows $R^2 = 0.59$. Change in pharmaceutical competitiveness is attributed to Jordanian pharmaceuticals' perceived value. Results in Table 11 indicate that there is a relationship between pharmaceutical product perceived value and Jordanian pharmaceutical companies' competitiveness.

TABLE 6 Descriptive Analysis Results for Independent Variable Regarding Pharmaceutical Product Prices

Independent variable	<i>M</i>	<i>SD</i>	Frequency	<i>M</i>	<i>t</i>	Sig. (two-tailed)	Result
Pharmaceutical products prices and quality	3.80	0.39	0.76		23.58	0.000	Accept H2

TABLE 7 ANOVA Analysis Results Regarding Pharmaceutical Product Prices

Independent variable	<i>SS</i>	<i>df</i>	R^2	<i>F</i>	Sig.	Result
Pharmaceutical products prices	2.47	1	0.62	209.02	0.000	Accept H2

TABLE 8 Coefficients for Pharmaceutical Product Prices

Independent variable	Unstandardized coefficient	Std. coefficient	<i>t</i>	Sig.	Result	
Pharmaceutical products prices	0.350	0.024	0.784	14.46	0.000	Accept H2

TABLE 9 Descriptive Analysis Results for Independent Variable Regarding Jordan Pharmaceuticals Perceived Value

Independent variable	<i>M</i>	<i>SD</i>	Frequency	<i>M</i>	<i>t</i>	Sig (two-tailed)	Result
Jordanian pharmaceuticals' perceived value	3.84	0.39	0.77	24.88	0.000		Accept H3

TABLE 10 ANOVA Analysis Results Regarding Jordan Pharmaceuticals Perceived Value

Independent variable	<i>SS</i>	<i>df</i>	<i>R</i> ²	<i>F</i>	Sig.	Result
Jordanian pharmaceuticals' perceived value	2.39	1	0.59	191.20	0.000	Accept H3

TABLE 11 Coefficients for Jordan Pharmaceuticals Perceived Value

Independent variable	Unstandardized coefficient		Std. coefficient	<i>t</i>	Sig.	Result
	<i>SE</i>	<i>b</i>				
Jordanian pharmaceuticals' perceived value	0.344	0.025	0.770	13.83	0.000	Accept H3

DISCUSSION

The discussion is intended to answer research questions derived from our hypotheses and the problem elements the study was based on. A simple random sample consisting of 133 people participated in our study in order to measure their attitudes toward Jordanian and exported drugs to explore the factors that affect their buying behavior. In recent years, Jordanian pharmaceutical companies' sales and market share have improved compared to their foreign counterparts in Jordan (Amman Chamber of Industry, 2006).

Our findings show that consumers regard the quality of the drugs as the first priority without any consideration about the drugs' country of origin. In addition to the importance of price, consumers concentrate on perceived value rather than country of origin. We want to know if consumer perceptions of quality, price, and value really influence pharmaceutical companies'

competitiveness perceptions. In the past decade, marketing managers in Jordanian pharmaceutical companies have designed advertising campaigns aimed at improving quality, price and value perceptions for their products and our study aimed to investigate if these efforts have paid off.

Question 1

What is the statistical relationship between Jordanian pharmaceutical product quality and Jordanian pharmaceutical competitiveness in the local market? Study results indicated that there is a significant relationship between the degree of Jordanian pharmaceutical product quality perceptions and the increment in competitiveness. With a mean of 3.96 on a scale of 5, results indicate a high degree of agreement to use quality more than price or country of origin as a proxy for competitiveness. The relationship between consumer quality perceptions and competitiveness was found to be significant.

Question 2

What is the relationship between pharmaceutical product prices and Jordanian pharmaceutical competitiveness increments in the local market? Study results indicated that there is a significant relationship between Jordanian pharmaceutical companies adopting appropriate pricing policies with the competitiveness of pharmaceuticals perceived by patients. This variable ranked second after pharmaceutical product quality in terms of relative importance with a significant R^2 of 0.62 and mean amounting to 3.80. Consequently, price is a major factor determining the purchasing behavior towards pharmaceutical products. It tells us that consumers are comparing prices of local pharmaceutical products with imported foreign pharmaceutical products' prices. The relationship between consumer price perceptions and competitiveness was found to be significant.

Question 3

What is the relationship between consumers' pharmaceuticals value perceptions and the competitive capability of Jordanian pharmaceutical companies in the local market? Study results indicate that there is a significant correlation between Jordanian pharmaceutical companies' products' perceived value and their competitive capability. Perceived value ranks third in explaining Jordanian pharmaceutical company competitiveness. Consumers' value perceptions of pharmaceuticals and the benefits they obtained from them are major determinants of Jordanian pharmaceutical companies' competitiveness. Consumers consider advantages and disadvantages of the financial and nonfinancial costs of purchasing Jordanian pharmaceuticals. Consumers relied on perceived value more than word-of-mouth and physician's

comments regarding imported and domestic pharmaceutical products. In our study, the relationship between consumer value perceptions and competitiveness was found to be significant.

MANAGERIAL RECOMMENDATIONS

Based on responses from patients in public hospitals in Jordan, the study recommends the following:

Managers in Jordanian pharmaceutical companies should continue to review their pricing policies of their products and adjust pricing strategy based on cost analysis and pharmaceutical product quality. In order to justify higher prices, managers should examine the perceived value of their products and see if it is equivalent to the costs the citizens think they should pay to obtain the pharmaceutical product's benefit.

Managers should use marketing oriented programs that are suitable for targeting their local market. The intention is to enter the new Arabic market by concentrating on pharmaceutical product quality and the benefits they can provide (perceived value).

It is necessary to apply a customer orientation concept that includes studying patients' needs to provide products that will meet their needs and meet their expectations. It is also necessary to promote the use of new advertising techniques that can be used in communicating with targeted markets such as press conferences, exhibitions, and care events. Care events can be used to concentrate on improving the local pharmaceutical products' image compared with imported foreign pharmaceutical products.

Based on our results, managers of these companies have been successful in creating good consumer perceptions and those efforts have paid off in terms of sales and market share. By improving quality, price, and value perceptions Jordanian company managers have developed a strong competitive advantage and have gained ground against foreign pharmaceutical companies in Jordan.

LIMITATIONS AND FUTURE RESEARCH

This study sought to investigate how the perceptions of Jordanian pharmaceutical products have improved and how these perceptions have an effect on competitiveness. These variables include quality, price, and value perceptions. Even though based on the study results these variables help explain a great amount of the variance in competitiveness, other variables not addressed here could contribute. For instance, it is recommended to study other independent variables not included in the study model such as company reputation, product involvement, degree of economic growth, and GDP. Another variable not included in this study is advertising expenditures

of pharmaceutical product companies. In order to more competitive, Jordanian companies are advertising the benefits of their products and trying to change quality, price, and value perceptions of patients and physicians. Finally, to test the model on other product and service sectors could provide additional insight. Managers of these companies are on the right track and have been successful in creating a good mental image in the public sector hospitals patients' minds. By improving quality, price, and value perceptions Jordanian company executives have improved their competitive edge against foreign pharmaceutical companies.

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