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CONTENTS

Research Findings on Re-evaluation of the Demand Conditions in the Diamond Model

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Abstract

This study aims to re-evaluate the demand condition determinant of Porter's Diamond Model. Inductive perspectives are used in measuring the demand conditions over the actual situation in the demand, instead of measuring the concept deductively. It attempts to "build a bridge" between the realm of theories and "the real world", the items of men's shirt purchasing were revealed by the focus group interview, some business level strategy variables and their association with the shirt purchasing priorities were explored and described by field survey. By using this different approach to the measurement issues, the research attempts to contribute a clearer definition of the demand conditions determinant of national competitiveness, and makes direct connections from competitive strategy to international strategy in a more detailed way. The study interprets the results and makes implications in a different manner by encompassing the reality of a developing country's firms.

Keywords: Men's shirt purchasing criteria, purchasing priorities, brand loyalty, demand conditions, national competitiveness, the Diamond Model

I. Introduction

In recent years, together with the expansion of globalization and the global integration efforts have becoming vital for nations to position their national markets within the global markets, especially for the developing and underdeveloped nations. Michael E. Porter, "The Competitive Advantage of Nations", publishes the most extensive study that has been carried in this area in 1990 [1, 2, 3, 4]. Porter, bearing all the theories of international trade in mind, brings an explanation for the subject matter by a systematic and comprehensive approach [4]. Porter in his work, tries to elucidate the reasons why some nations are successful in international

competition while others are not. Preceding his work, David Ricardo's Comparative Advantage and Factor-proportions Theory by Heckscher and Ohlin were the major means for understanding how differences among nations increases trade and how nations mutually enjoy its benefit [5], though they fall short of being sufficient in explaining why one country in some industry segments is more productive and advantageous than other countries [6,1]. In this sense it can be asserted that the noteworthy findings and arguments in Porter's mentioned work could be a useful tool for nations in determining their industrial policies, since his work, beyond all the international trade theories, puts clearly the principles of gaining international competitive advantage in the industrial level. Moreover, his work deserves attention in the sense that it demonstrates clearly that national environment affects the national competitiveness by improving some resources and skills [7]. Porter's Diamond Model was generally criticized for being insufficient for the countries located in trade blocks [8, 9]. Nevertheless, the diamond model is defended to be applicable in some developed countries that did not go through such unifications, such as New Zealand [10] and Australia [11], and some developing countries like Turkey [3] and China [12]. According to Porter's Diamond Model, the national competitiveness is formed by the quality of interaction among four determinants; factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry [6]. Porter [6] asserts that the most important motivating factor is the pressure on companies to innovate and invest. It can be seen in the mentioned work that the four determinants have been analyzed by the effect of their ability to simulate firms to make innovations and to upgrade and widen their advantages over the time. According to Porter [6] the demand conditions are the most influencing determinants of shaping the rate and features of the innovations that national firms are going to make. Accordingly, he suggests that the quality of the home demand is more important than its quantity in determining the competitive advantage. For Porter, there are three main features of the home demand in contribution to national competitive advantage: 1. *Home Demand Composition* (the nature of the needs of the buyers), 2. *Demand Size and Pattern of Growth*, 3. *Internationalization of Home Demand*.

As previously mentioned, in the diamond model the determinants are mainly analyzed according to the degree to which they simulate innovations and upgrade firm's advantage. This general rule is also valid for all three features mentioned above. When the hierarchy of importance of these three factors is concerned in terms of their contribution to the competitive advantage, Porter [6] claims that *the composition of home demand* is the main base of the competitive advantage. *The demand size and patterns of home demand* may act as a supporting factor in the increase of the advantage by influencing the investment behavior, timing and motivation. It can be argued that *the internalization of home demand* is the third level contributive factor for competitive advantage.

Since the composition of the home demand appears to be the key criteria for creating national competitive advantage among these three components, very important derivations can be made in determining the national competitive advantage by a careful analysis of home demand composition. Nevertheless, at this point, just like Grant [4] has criticized, some difficulties arise with the diamond model, due to the lack of clear definitions of concepts and relations in his theory. Porter, while providing a wide perspective by shifting strategic management concepts from firm level to national level [4] he naturally left the relationship between demand conditions and factors at business level strategy unclear. For this reason, it is not possible to observe in his study the relationship between home demand composition and some issues of business strategy such as the level of brand loyalty, purchasing factors, demand features (age, gender, position, tendency to follow the latest fashion and trends, socio-economic status) and what kind of specifications should these issues display in creating national competitive advantage. Therefore in this study, the mechanism of the demand conditions by which the innovations and upgrading of products and services will be done are going to be examined by looking at "the real picture" of the Turkish Men's shirt market segment in apparel industry, and making connections between the real picture and the Demand Conditions in Porter's term. Purchasing priorities of customers are used in measuring and defining the demand conditions, and the priorities are related to some business strategy components as to make connections to the national competitiveness in the selected industry (Figure 1).
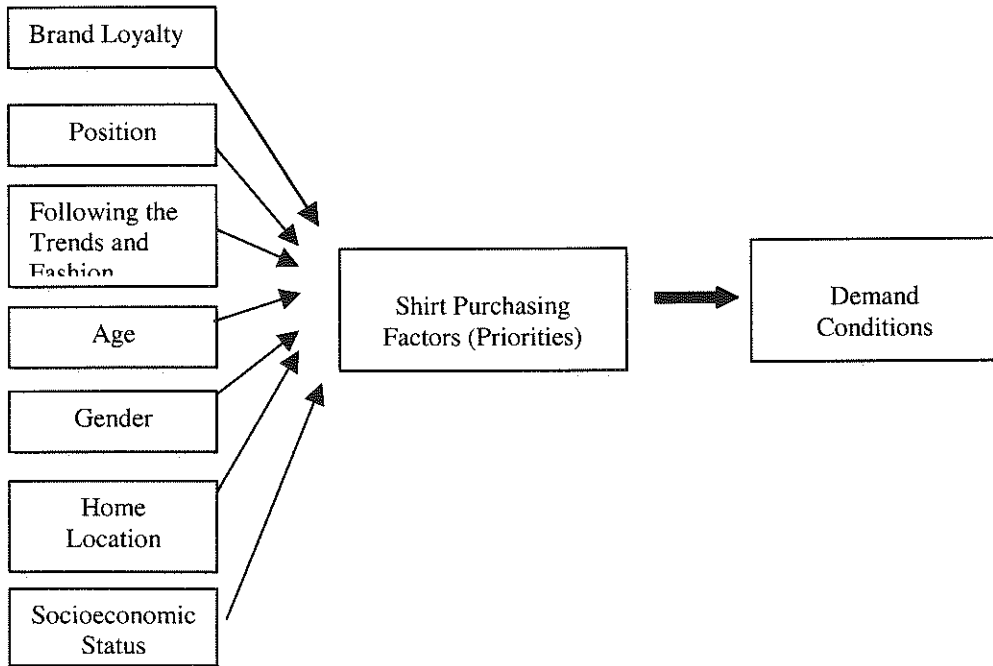
Figure 1. The Relationship Among the Features of Shirt Market, Nature and Priorities of Buyers and Demand Conditions.

This research attempts to give first insights on clear definition of the demand conditions concept, mainly the concept of home demand composition, and related relations in the Diamond Model, as the definition concerning how the business strategy components related to the national competitiveness is not clearly set in the model. This study hopes to fill this vacuum.

II. The Research Design

Sampling: The survey is designed on account of two different dimensions. The first dimension contains the demand and the second contains the supply. For the demand part, the white-collars who wear mostly shirts in their daily working life and, therefore, continuously need to purchase shirts were considered, and for this case bank employees were

assumed to represent an appropriate group of the white collars. The supply part is the firms that produce men's shirt. The survey is kept within the provincial borders of Istanbul since the majority of these firms are located in this city, and the 73% of the apparel exportation is carried by the firms registered to Istanbul Textile & Apparel Exporters' Association [13]. The study covers only, all of the branches of private and public banks in Istanbul, except from those, which are taken over by the Banking Regulation and Supervision Agency.

Cluster sampling, quota sampling and simple random sampling methods are combined to determine sample size and select sample elements. In the sample design, the quota for each bank is determined in relation to their employee numbers keeping percentage of total employee number in Istanbul constant. Each branch of the banks in the sample is selected randomly by using the simple random selection method [14]. The questionnaires are applied to whole employees of each branch in the list as a necessity of cluster sampling design. The sample size is 246 out of 34875 total bankers in Istanbul.

III. Measurements of the Variables

Brand Loyalty is defined as preferring one brand over another and tendency for purchasing it in the research. In the light of this definition, repeat purchasing behavior is taken as base in measuring brand loyalty. A literature survey for brand loyalty would show that a close relationship between brand loyalty and repeat purchasing behavior. Furthermore, in a study for reviewing operational definition for brand loyalty, in almost over 300 research articles on brand loyalty revealed that the key point in measuring brand loyalty is purchasing the same brand regularly [15].

The Factors Affecting Shirt Purchasing is defined as the criteria that consumers pay attention while purchasing a shirt. In identifying items of the factors, a qualitative research method of focus group interview was used. Two groups are formed in the focus group study; the first group consisted of ten people from various private companies (multinationals, large and medium nationals). Six employees of banking sector formed the second group. At the first step, the researchers tried to identify the original motives with entering into an apparel store, the reasons for staying longer in

one store than another, and the factors affecting their purchasing behavior. At the second step, the tendency of purchasing a shirt, and the criteria by which they make their purchasing decisions were clarified. The researchers paid extra attention to avoid attending conversations and manipulating the respondents. The conversations recorded during the focus group interview were reviewed afterwards and the items affecting shirt purchasing were listed. As a result of the interview, twenty-two items were determined which are listed in the table 1.

Table 1. Factors for the Priorities in Purchasing a Shirt Brand

		Mean	Total Variance Explained %
Factor 1	**Promotion Efforts and Place**		50,82
	Preference of the Celebrities	,791	
	Being Foreign Brand	,779	
	Decoration of Store	,760	
	Brand Prestige	,712	
	Reference from Acquaintances	,682	
	Store Location	,674	
	Manufacturer	,658	
	Package	,630	
	Promotion	,628	
	Being Uncommon	,562	
	Convenience	,559	
	Trust in Brand	,557	
	Risk of Being	,556	
	Being Trendy	,517	
Factor 2	**Price and Service Level**		6,99
	Price of Shirt	,815	
	Sale Period	,641	
	Sales Personnel Attention	,626	
	Knowledge of Sales Personnel	,611	
	After Sales Services	,547	
Factor 3	**Product Features**		4,73
	Quality of Sewing	,815	
	Features of Texture	,815	
	Ease and Lasting of Ironing	,625	
	Design of Collars	,515	

IV.   The Research Findings

The Alfa Coefficient value of 0.7948 showed that the survey is reliable at significant level. Alfa Coefficient for all purchasing items is 0.9552.

Purchasing Priorities (Shirt Purchasing Factors): In Grouping the items for men's shirt purchasing that were collected from focus group interviews, Factor Analysis applied and the following factors and values were gathered (Table 1).

The Relationship Between Brand Loyalty Levels and Purchasing Priorities: The result of the ANOVA analysis indicated that there is no relation between promotion efforts and place factors but there is a 'medium level' relation between product features and brand loyalty (F=7.726 and p=0.001). Shirt's brand loyalty levels and product features factors in purchasing are related at medium level (Eta squared 0.060).

The test of homogeneity of variance, Turkey HSD, was significant (F=5.462, p=0.005). The results indicate that people with high-level brand loyalty have no different priorities than those with low-level brand loyalty in terms of the product features while medium level brand loyalty group and low-level brand loyalty group differentiated significantly from one another.

Relationship Between Position at Work and Purchasing Priorities: The results indicate that there is no significant relationship between position at work in terms of the promotion factor and the price and service level factor. Position at work is associated with the product features factor (F=3.559, p=0.004). Nevertheless, as a result of Levene Test (F=4.031, p=0.002) of Shaffe test, significant difference between medium level managers and assistants to assistant executives has been discovered. Accordingly, assistant executives who are at the early stages of their career life, pay less attention to the product features in purchasing shirt than the rest of the respondents.

The Relationship Between Following Shirt Fashion and Trends, and Purchasing Priorities: There is a significant relationship between the product features factor and shirt fashion and trends variable (t=4.201, p=0). No significant association has been found between bank employees who follow shirt fashion and trends and those who do not, in terms of the price

and service level factor (t= -2.105, p=0.036) and the promotion factor (t=1.774, p=0.077) while purchasing a shirt.

The Relation Between Age and Purchasing Priorities: There is only significant relationship between different age categories and the product features factor according to the ANOVA Analysis (F=7.257, p=0). The scores of the Levene Tests indicate that, people who are 20 and below and those who are 46 and above have no significant difference in terms of the product features factor. Except these two age groups no significant difference among the rest of the age groups was observed regarding the product features factor. These results point to a strong similarity to the scores of the relationship between respondents' position at work and the product features factor indicating validity of the study.

The Relationships Between Gender and Purchasing Priorities: As a result of the Independent Sample T Test, gender differences has no significant difference on the promotion factor (t=-0.71, p=0.479), the price and service level factor (t=1.737, p=0.084), and the product features factor (t=-1.545, p=0.124).

The Relationship Between Home Location and Purchasing Priorities: he results of the ANOVA test indicates that there is no significant relation between the regions of the respondents and the promotion efforts and place factor (F=3.051, p=0.049), the price and service level factor, (F=2,201, p=0,211), and the product features factor (F=0,412, p=0,663). The only significant difference is between developed regions and developing ones in terms of the promotion efforts and place factor (t=2,911, p=0,007). According to the multiple-comparison, the bank employees who live in developed regions pay more attention to the promotion efforts and place factors in purchasing men's shirt, than those who live in developing regions.

The Relationship Between Socioeconomic Status and Purchasing Priorities: The results state that the socioeconomic status is not associated neither with promotion efforts and place factor (F=0,319, p=0,811), nor the price and service level factor (F=1,815, p=0,138). On the contrary there is a significant difference in relation between socioeconomic status and the product features factor (F=5,761, p=0,001). Eta Squared value of 0,68 indicates medium effect size between them. The bank employees from

different socio-economic status have different preferences in purchasing a shirt in terms of the product features factor. The bank employees at C_2 status pay less attention to the product features factor while buying men's shirt than those at A and B status according to the Shaffe Test.

V.   Conclusions and Implications

Although the priorities in purchasing a product, buyers in terms of demand conditions are not clearly observed in the diamond model, it can be argued that in terms of demand conditions, buyer priorities in purchasing a product has a vital role in indicating pressures on firms to innovate and upgrade their products as discussed previously. The reason behind this is to allow researchers to directly observe how the buyers power influences firms to upgrade and innovate. In that sense it can be claimed that conditions affecting the purchasing factors (demographics, brand loyalty, following fashion and trends etc.) have also an effect on the demand conditions.

It has been observed that business level strategy factors such as position, following the latest fashion in shirt, age, socioeconomic status, and brand loyalty show significant differences only in terms of the product features factor in shirt purchasing. Being concerned of other researches to explore effects of each of the business level strategy factors on the demand conditions, the research results give a strong impression that the demand conditions in men's shirt segment in Turkey may not be the motivating mechanism for its national competitiveness. Since the shirt purchasing factors of the promotion efforts and place, and price and service level factors have differentiating effects on shirt firms and besides those two factors are the least priorities in buying a shirt having around the average level importance.

In investigating the reflections of these results upon the demand conditions for men's shirt and national competitive advantage; the results will be analyzed in terms of the buyers' pressure to make innovations and upgrade their products and services in general, and the nature of the buyers and the features of the home demand specifically. When the general tendencies of the bank employees are concerned it has been explored that the highest priority given in purchasing a shirt, which has high level

importance, is the functional features of a shirt such as its texture, its sewing quality, ease and lasting of ironing, its design of collars etc. The second important factor, which has just above the average priority, is the price and service level factor consisting of attention sales personnel give to the customers, knowledge of sales personnel, after sales service, price and sale period. Finally the least priority in buying a shirt the covering being trendy, trust in brand and firm, brand prestige, convenience, location of store etc. These results can be claimed to be general priorities of purchasing a shirt of constant buyers, as these results do not change whether buyer's ages, gender, positions, socioeconomic statues, brand loyalty levels, tendencies of following the fashion and development levels of their home location vary in terms of their tendency to prioritize the price and service level factor and the promotion effort and place factor. The only exception to this result is the significant difference between the development level of home location, and the features of the shirt buyers, their demographics, brand loyalty levels, and tendencies of following trends and fashion, make only small differences in their priorities of the product features in purchasing a shirt at the limited level. Therefore it can be claimed that the general results can be reflected on the national competitive advantage of men's shirt firms in Turkey as the results give meaningful insights on the national competitiveness. Besides, the fact that the constant shirt buyers pay attention to shirt's functional features rather than especially trends in shirt fashion, trusting in firm's and their brand, brand prestige, the results can be interpreted as vital signs of the demand conditions affecting the national competitiveness in the way Porter argues in the diamond model. The results may be claimed to be a sign that local buyers do not have positive effects on the local men's shirt firms to gain national competitive advantage. This conclusion has clearer meaning when considering brand loyals have no strong difference in preferring a brand, and prioritizing their preferences similar to nonloyals and showing no distinct preferences in purchasing a shirt. Although these results also indicate that men's shirt has not reached to the maturation level [16, 17], the results partly parallel with a study [3] since both of the studies found their roots on the basis of Turkey as a developing country.

The ranking of priorities of shirt purchasing factors of the constant buyers indicates that they are not endowed with the qualities of what Porter

calls sophisticated and demanding buyers, needs of anticipatory buyers, and not having any pressure on the shirt firms for innovation and improvement, and upgrading their competitive advantage, the home demand composition does not work on pressuring local firms to innovate faster and achieve more sophisticated competitive advantage. However, the fact that medium brand loyals differ from high and low brand loyals exclusively in terms of product features in shirt purchasing supports the above idea. Similarly the fact that the followers of the fashion value only the product features more exclusively as opposed to non-followers supports this diagnosis.

The fact that brand loyalty does not have any significant differences in factors concerning the demand may indicate that the home demand composition is far from the features that Porter defines for the national competitiveness. According to this conclusion, it can be claimed that local shirt firms compared to foreign ones cannot get earlier or clearer pictures, and also the home buyers do not force the local shirt firms to make fast changes and create unique competitive advantage to local shirt firms. This result clearly gives the impression that the home composition in the Turkish shirt industry may not shape the rate and character of improvement and innovation in the industry.

Finally it can be argued that, according to Porter's approach, bank employees do not function as an effective and motivating force through the availability of the demand conditions for the local shirt firms in achieving national competitive advantage, and force the firms to create national competitive advantage.

Another managerial result for the local firms is about the role of the determined demand conditions for achieving the national competitive advantage. The fact that bank employees are not demanding, do not have sophisticated demands, or anticipatory buyer needs, brings the idea that the bank employees do not include the segments, which would provide the sophisticated competitive advantage. This conclusion gives the impression that they do not have positive contribution to the local firms in achieving the national competitive advantage in terms of home demand composition. Moreover, the view that the bank employees' local demand composition is not directing the local firms to the desired products and features abroad,

suggests the idea that the features of the home demand are not favorably positioned in terms of national competitive advantage.

Although the research results do not allow us to make any derivations about internalization of domestic demand, it can be asserted that the impact of the bank employees in achieving the national competitive advantage is limited in general since bank employees' contribution to national competitive advantage is assumed to be indirect and low. However this conclusion should not mislead the local shirt firms to ignore the demand conditions and to be insensitive towards the buyers. Because, as previously mentioned, though each of the determinants does not necessarily support in terms of the national competitive advantage, yet it is approved that the determinants have an empowering impact on each other. For this reason, it is essential to establish the demand conditions so that they support the national competitive advantage. Porter [6], in the case of South Korea, has observed that although the demand conditions are playing less importance in diamond model, the economy upgrades itself continuously. However, the author [6] finds it doubtful in terms of the sustainability and development of the national competitive advantage.

To sum it up, in order to shape the home demand conditions to their benefit, the shirt firms, in achieving national competitive advantage, should enlighten and inform home buyers and dismiss the idea of "I sell whatever I produce", and wait till rivalry and the stage of the product cycle force them to initiate it, and deal with this problem proactively. This dynamic approach is needed since realities for a developing country's, like Turkey, firms are very different and more challenging than it appears to be. This necessity, given that the quotas on the textile and apparel industries will be phased out by 2005 all over the world according to the Agreement on Textile and Clothing [18, 19] and the current agenda regarding the membership of Turkey to the European Union, is of extreme importance. At this point, the impact and importance of the influence of the government and other layers of society upon this enlightenment should be emphasized. As Porter suggests [6], the government may play important role in shaping the buyer needs by establishing the product standards, making legal arrangements and controlling firms.

It should be emphasized that for the developing countries like Turkey, governments while determining the industry policies by taking the diamond model into consideration, their decision regarding the positioning of the country in the international value chain, developing the industry policies in this direction and, as suggested to the firms above, effecting the diamond model determinants consciously in a proactive approach, have central importance as demand condition may have vital role in gaining sustainable national competitiveness. This statement becomes even vital since internal sources and competencies has central role in gaining sustainable advantage [20].

Acknowledgements

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