

Canan Saricam,
*Seekin Polat,
**Nancy L. Cassill,
Fatma Kalaoglu

Department of Textile Engineering
Faculty of Textile Technologies and Design
E-mail: canansaricam@gmail.com

*Department of Industry Engineering
Faculty of Management
Istanbul Technical University
Istanbul, Turkey

**Department of Textile Apparel
& Technology, Management
College of Textiles
North Carolina State University
Raleigh, United States

Strategy Development and Assessment via Scenarios for the Turkish Apparel Industry

Abstract

The Turkish textile and apparel industry is losing ground as a global player. This forces it to make a careful future analysis to determine the road map ahead and to develop appropriate strategies. Since long term success heavily depends on the development and implementation of strategies that best respond to future requirements for achieving objectives, this study aims to develop strategies for the Turkish apparel industry and determine key strategies among them with a procedure that enables users to make a strategy assessment. For this aim, an approach involving scenario development and strategy appraisal is proposed and applied to the Turkish apparel industry. After describing the general framework of the application, main issues and findings are summarised for the industry and companies acting in the field.

Key words: Turkish apparel industry, scenario, strategy development, strategy assessment..

■ Introduction

The apparel industry has shown enormous expansion since 1980, making a great contribution to Turkey's trade and economy. Companies acting in the field of the apparel industry evolved from simple assembly to full package producers with the experience and capabilities developed especially after the 1990s [1]. Turkey is ranked 5th in apparel in the world with export values of 13.9 billion US dollars in 2011 [2]. However, the industry then began to lose ground in Turkey and has entered a challenging period on a global platform in recent years.

The value of apparel exports reached 7.2 billion dollars in 2000, with a share of 26.14% in the total exports of Turkey [3, 4]. After 2000, the share of apparel exports in total exports began to decrease in spite of the continued increase in terms of values. The apparel industry had a share of 10.35% in the total exports in 2012 with 15.77 billion dollars worth [3, 4].

Basically because of the geographical proximity, the percentage of Turkish

exports made to EU12 and EU15 countries became 80% in 1990 and 76% in 2005 [5]. But the EU has evolved into a more competitive market in recent years. Even the key players and effectual partners have changed with time. Turkey has preserved its position ranked third, but the share of Turkey in apparel imports of EU countries decreased from 10.1% in 2000 to 7.2% in 2011[6]. The closest competitors Hong Kong and Tunisia were replaced by Bangladesh and India [6], which shows the agility of the competition and the apparent challenge that Turkey has come across within its most important market.

The Turkish apparel industry has become vulnerable to the increasing competition from Far Eastern countries in the domestic market. The amount of apparel imports increased from 264 million dollars to 3,272 billion dollars between the years 2000 and 2011[7], revealing that there is great pressure on Turkish producers in the domestic market.

Considering the situation described above, it is very important for the Turkish textile and especially apparel industry to better forecast and prepare for the future by implementing well organised strategies. Scenarios are one way of predicting the future and allow to develop future strategies that are contingent and convenient for the objectives. However, it is very important to determine key strategies within the scenario for which multiple strategies developed may be influential and dependent on others. Adding a procedure for strategy assessment within the defined scenarios enhances the efficiency of strategy development by determining the prior issues.

The objective of this study is to develop strategies for the Turkish apparel industry using an approach that determines the key strategies by a strategy assessment process in scenarios. For this aim, an extended version of the scenario planning method based on Godet's scenario planning method is made use of creating an environment or future image in order to develop strategies within it and to build a framework for strategies to be assessed. Strategy assessment was proposed by way of considering the influence and dependency relations between strategies within the scenarios suggested to be implemented for. After giving the approach proposed, the application procedure is explained for the development and assessment of strategies for the Turkish apparel industry within the scenarios established using Godet's scenario methodology [8]. In the end, all the strategies and the key strategies were given with main findings.

■ Literature review

Coming from the Greek word Strategos with the meaning 'the art of the General' [9], strategy is the path to a predetermined objective. Mintzberg identify strategy with 5 P's, which are plan, ploy, pattern, position and perspective [10]. As pointed out by Dyson [11], the uncontrollable variables, consumer response, competitive reaction, exchange rates, cultural changes, and economic trends have a major impact on a firm or business' future, leading to uncertainty, which forms the key point of strategic management and strategy development. Forecasting and scenario development are the two tools that are used to determine uncertainty and develop a future image. Forecast-

ing tells exactly how some variables can change in the future usually by extrapolating it from past events [12]. Different from forecasting methods, scenario planning is a special technique for projecting potential futures in order to improve present decisions. A scenario, which can be defined as a description of a possible set of events that might reasonably take place [13], is based on foresight instead of forecast. Foresight is related with the ability to see the future [14], and scenarios have a larger view of different aspects of events than forecasts [15].

There are three main groups of scenario planning methods [16], known as the Intuitive-logics, Probabilistic modified trend school and La Prospective. They differ in terms of the application steps, the degree of quantitative and qualitative data they were based on, and the consideration of relationships between the variables. The La Prospective approach uses the basis of the Intuitive Logics school, but it is closer to the Probabilistic modified trend school [16]. Adding several mathematical and computer based probabilities in the combination. Godet has long proposed a modular approach to foresight in the La Prospective school [17]. Godet's methodology is known as outcome oriented quantitative methodology, which sets key variables for a specific subject [18].

Firstly used in the military as a strategic planning tool after World War II, scenario planning was applied in marketing and management in different industries such as the electrical industry [19], forestry [20], advertising [21], the power industry [22], e-commerce [23], and the security equipment sector [24]. Jarke et al. [13] states that scenarios can be used in different fields for different uses by many people such as the economist for long range planning, the policy maker to weigh up the consequences of actions and the management scientist for strategic decision making and goal discovery. According to Goodwin and Wright [25], once the scenarios are generated, they can be used for two related purposes, which are the development of strategies and the evaluation of proposed strategies with the selection of the most appropriate one. Having been developed, the strategies should be tested for being appropriate for the objectives of the business, major plans and policies of the companies as well as for the assumptions on which they are based [26]. Schoemaker states the advantage of

scenarios as being a script-like characterisation of a possible future presented in considerable detail with special emphasis on causal connections, internal consistency and concreteness [27]. This led scenario planning to be one of the useful techniques that allow building strategies to consider causal connections and that provide a natural way of the assessment of strategies in terms of consistency with the goals. Scenario planning is undeveloped in the evaluation of alternative strategies [25] and there are not many studies in the literature related to strategy evaluation within scenarios. Nonetheless considering the usefulness of scenarios in both strategy development and assessment, an approach can be adopted benefiting the modular structure of Godet's scenario methodology.

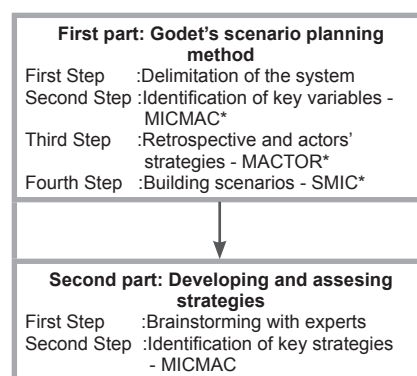
Method

In this study, strategies were developed and assessed within future scenarios for the Turkish apparel industry to be advantageous in competing specifically in the European market for a period of 10 to 15 years. The structure of the approach, which was basically derived from Godet's scenario planning method, is given with the methods included in *Figure 1*.

The first part of the approach includes the application of Godet's scenario planning method to build the hypotheses and scenarios. The second part is dedicated to strategy development and assessment, being the main concern of this study. In the second part, the hypotheses and scenarios, which are the outcomes of the first part, are used to develop strategies and assess strategies, respectively.

In the strategy development step, strategies are developed for each hypothesis using the brainstorming technique with an expert group. In the strategy assessment step, the strategies are assessed using the MICMAC method, which requires data input from the experts, who evaluate the relationship between the strategies by making pairwise comparisons.

The MICMAC method is a system of multiplication of matrices applied to the structural matrix to study the diffusion of the impact through reaction paths and loops; thus a hierarchy can be developed for the variables in the end [28]. In the application of the MICMAC method, a structural matrix that has the same strate-



*Figure 1. Structure of the model applied for strategy development and assessment; *MICMAC: cross impact matrix-multiplication applied to classification, *MACTOR: matrix of alliances and conflicts: tactics, objectives and recommendations; *SMIC: French acronym for cross impact systems and matrices.*

gies both in rows and columns is established. Each cell in the matrix shows the direct relations between the strategies and they are filled by the experts. In order to find indirect relations within the matrix, its square is evaluated. Each time this process is repeated, a new hierarchy of strategies is obtained until reaching a stable state where the sequence of the sum of the rows and columns does not change anymore. After matrix multiplications, an influence dependency chart for the strategies is drawn and interpreted as suggested by Godet. Data for the study was provided by experts based on the fact that personal judgments are important for future anticipation [28]. Six experts were selected considering their background and knowledge. Careful attention was given in the selection process of the experts in case the experts in groups had experience of different stages of textile and apparel production and marketing.

The working procedure involved four steps of interviews in accordance with the requirements of the method. The results were checked at each step for further corrections to be made. Moreover the experts' opinions were subjected to control with inter rater agreement and the opinions of each expert were checked to see their discriminative power of the expert.

Application and results

Having been determined in study [8], which is about the development of scenarios for the Turkish apparel industry, six hypotheses and four scenarios, shown in *Table 1*, were used in strategy develop-

Table 1. Matching the scenario to the hypothesis.

	Scenarios	All in one	Fashionable green products	Regional fast fashion brands	Technological brands with a shift on production patterns
Hypotheses	The low cost countries will lose their advantages as wages increase	✓	✓	×	✓
	The demand for technologically improved garments will increase	✓	×	×	✓
	The number of brands will increase, the customer base will decrease to a certain extent	✓	×	✓	✓
	The environment friendly product will gain popularity	✓	✓	×	×
	Trade partnership activities within the trading blocs will increase	✓	×	×	×
	The product portfolio will enlarge, the variability and number of seasons will increase	✓	✓	✓	×

ment and assessment steps, whose application procedures were explained under the titles “The application and results of the first step: Strategy development” and “The application and results of the second step: Strategy assessment”.

Application and results of the first step: Strategy development

Based on the fact that Godet’s scenarios are the combination of hypotheses, each one was handled independently as a situation identifying the field of strategy development by the experts in the strategy development step. A general objective was determined as “achieving success within this situation” for each hypothesis. The experts then made the following suggestions for strategies to achieve these objectives in turn considering the situation of the Turkish apparel industry and European market using the claims below.

Strategies developed for the objective: “Producing at low cost” corresponding to the hypothesis: “The low cost countries will lose their advantage as wages increase”

Considering the influence of low cost producers in the European market, gaining the ability of producing the same quality at lower cost would clearly be an advantage for Turkey in the European market. For this reason, the apparel industry was suggested to decrease the amount of investments in expansion and apply some special production techniques instead. With this in mind some special equipment and automated machines might be used in sewing machines to produce quality products at higher speed and lower production costs. Besides this workers should be trained to gain specific job

skills. An investment should be made to modernise the facility in order to shorten the production cycle. Modular production and lean production were proposed to be implemented to increase the quality and shorten the throughput time by decreasing the work in progress. As the raw material comprises the highest share in the production cost, decreasing the raw material and production cost and increasing the usability of the raw material were found to be important. These might be achieved by increasing the efficiency of the graphics layout and cutting procedure in apparel companies. Different from all these, the experts stated that collaborative actions could simplify production and a trusted and seamless supply chain could speed up production and lower costs if all the companies agreed on acting as one production facility.

Strategies developed for the objective: “Producing technology intensive products” corresponding to the hypothesis: “The demand for technologically improved garments will increase”

The experts stated that the first step should be making a definition of the technological product that would be produced. Therefore a decision should be made if it would be revolutionary or evolutionary. If producing a revolutionary product was preferred then making an investment in R&D should be given higher priority than those in P&D. It was claimed that technological garments might be produced using technologically advanced products such as hollow fibers, nano-fibers, etc., that could provide special functions like thermal comfort, electro-shielding and protection against UV

or could give better aesthetic properties like non-wrinkling or better drapability. Besides this, based on the type of products preferred to be produced, an R&D laboratory could be built within one company or be established as a joint investment of partner companies. Some projects might be established with a university or companies that have R&D or P&D facilities. Cooperative studies should be undertaken with technology producers of technological materials or production technologies. Finally the people working in the industry were to be selected from those with a high level of creativity and capabilities.

Strategies developed for the objective: “Building Brands” corresponding to the hypothesis: “If the number of brands increases, the customer base will decrease to a certain extent”

The experts stated that the most important thing for building a brand was the determination of brand identity, equity and then the development of a value proposition. The extent of the market in which the brand would be promoted should be determined before the building of brand. This necessity arose for both the Turkish market itself and the European market, as these had a large consumer base with a wide range of requirements.

Market research activities were found to be critical for making correct segmentation and building niche brands. Niche brands could well be applied in highly diverse markets in which the consumers had the economical power to afford these products. The ways for branding a method, determination of the distribution channels and advertising activities, were proposed as branding strategies. Specifically it was suggested that Turkish producers use boutique type distribution channels as they were still favored by many European people. Besides this some methods like co-branding activities with different producers or the acquisition of other brands which were already existent on the European market were proposed. Notwithstanding, especially the co-branding activities could not be regarded as brand development but could lead to the development of new brands using the same consumer base.

Finally building collaborative relationships for a vertical supply chain was found to be quite important for a sustainable brand image. Logistic activities were stated to be given high significance

because the speed of distribution activities would easily influence brand image.

Strategies developed for the objective: “Producing Environmentally Friendly Apparel”, corresponding to the hypothesis: “Environment friendly products will gain popularity”

The most important problem in environmental issues was about the development of the standard because there were different organisations and associations writing the standards. But there was a hierarchy of standards which were international standards as well as governmental and marketing regulations, respectively, that companies in the industry should comply with. Companies should focus on the standards that were requested by the European market.

The experts stated that the usage of environmentally friendly materials could improve the environmental friendliness of apparel. On the other hand attention was drawn to the fact that not all natural fibers were environmentally friendly; environmental friendliness could only be understood with life cycle assessment. In order to bring about environmentally friendly production, integrated environmental protection activities were proposed, like the usage of proper technology and best available techniques. Furthermore post production stages like packaging and transport activities should be paid attention to and the harm caused to the environment reduced by using different types of packaging material and preferring combined types of the transport of materials, enabling the number of shipments to decrease.

Eco labeling on garments was the other strategy proposed by the experts, saying that eco-labels were highly favoured by European people. But all the production stages should be certified to get eco-labels, which meant that environmental friendliness could only be achieved by the total effort of the partners in the supply chain. An environmentally friendly perspective could be gained in the minds of partners of the supply chain via collaboratively associated projects.

Strategies developed for the objective: “Building Trade Partnership” corresponding to the hypothesis: “The trade partnership activities within the trading blocs will increase”

The primary point for building a partnership was improving the infrastructure

chosen as an eligible partner since some partnerships would require investing in a special type of machinery or process, such as the implementation of common IT tools and business models.

The secondary points for establishing a partnership were stated to be decisions about the type of partnership based on monetary and legal issues, building a partnership in supply or the market and determination of the extent of the region for partnership activities. For making these decisions, the industry should work hand in hand with government people to discover the most advantageous countries and partnerships.

It was added that special attention should be paid to building a brand partnership as the brand image was very vulnerable to that kind of experience. These decisions were stated to be significant as they could also lead to collaborative relationships for the vertical supply chain.

Finally the experts stated that the benefits of the partnership should be increased by building mutual trust and effort in the short term and by sharing know-how between associates in the long term.

Strategies developed for the objective: “Designing for a Quick and Large Portfolio”, corresponding to the hypothesis: “The product portfolio will enlarge, and the variability and number of seasons will increase”

According to the experts, the product portfolio changed according to the size of the companies in the industry, but the customer mindset and economy were also important. For this reason, especially mid-size companies within the industry should concentrate on core brands and adding value to products. Besides the portfolio should be enlarged and customised for the fashion conscious European consumer and the garments should be launched faster onto the market. Consumer preferences were stated to have a large range depending on the demographic, social and economical characteristics, personal activities, interests and opinions of the consumers. For instance, age was claimed to be a very important factor for making designs as both the requirement and shopping habits of the customers depended on the age. Older people were claimed to buy less because of the fit, quality and style problems. Keeping all these in mind, it was proposed to conduct market research in order to find out the

desires of consumers in the European market, where the population is getting older.

Conducting market research had great significance in identifying product groups in the product portfolio. The product portfolio could cover only the period of life like maternal clothing or the whole period of life, focusing on life-styles.

The experts believed in the advantages of performing proactive design activities by innovative and creative people. Working with the same designers could increase their abilities in time; whereas working with contract designers and free-lancers could bring a fresh view to companies.

Beside these firm specific and localized efforts, the industry should have a dynamic nature in order to launch new products as soon as possible after being created. For this reason, the experts drew attention to the tools and business models that increased the speed and flexibility such as technology usage for fast fashion, implementation of quick response strategies and improvement in logistic activities. Finally it was added that if companies in the industry made only the design instead of producing the garments themselves then a collaborative relationships should be developed in the vertical supply chain with mutual trust between partners.

Based on these suggestions, 37 industry level strategies which were related with each other were identified after eliminating the repeated terms and possible overlaps in their meanings, as shown in **Table 2**. The general type of strategy expressions were used in the table whereas the strategies selected might be specified by the companies, which were eager to implement them according to their capabilities and their consumer base by benefiting from the suggestions made by the experts.

The application and findings of the second step: Strategy assessment

Some strategies in **Table 2** were common in two or more hypotheses, showing that some of them could serve well and were essential for more than one objective. Considering the claims and suggestions of the experts, the implementation of some strategies had an influence on the other strategies, whereas some were dependent on others. This relation between the strategies could create dynamism

Table 2. Strategies developed for each hypothesis.

No	Strategy explanation	Producing at low cost	Producing technology intensive products	Building brands	Producing environmentally friendly apparel	Building trade partnership	Designing for quick and large portfolio
1	Employing qualified labor						
2	Cooperating with the technology producers						
3	Renewing of production technologies						
4	Using technological material for the products						
5	Determining the type of product						
6	Make investments in R&D						
7	Determining the extent of brand market						
8	Choosing the brand method-brand partnership						
9	Conducting market research in order to determine the target market and their needs via Segmentation						
10	Identifying the brand identity and equity-Value Proposition						
11	Building distribution channels						
12	Establishing advertising activities						
13	Building collaborative relationships for vertical supply chain						
14	Doing proactive design activities						
15	Employing designers						
16	Determining the product type in product portfolio						
17	Using technology for fast fashion						
18	Improving the logistic activities						
19	Implementing quick response strategies						
20	Getting recognised quality assurance certificate						
21	Using environmental friendliness raw materials						
22	Making improvements in the company to comply with regulations and update the standards						
23	Achieving environmental friendliness in the supply chain						
24	Integrating environmental protection activities in production						
25	Using ecolabels on products						
26	Providing eco-efficiency in post production stages						
27	Decreasing the expansion investments						
28	Decreasing the raw material costs						
29	Increasing the efficiency of usage of material						
30	Decreasing the production cost						
31	Increasing the labor efficiency						
32	Increasing infrastructure to be chosen as an eligible partner						
33	Determining the type of partnerships based on monetary and legal issues						
34	Identification of supply and market focus on partnership						
35	Determining the extent of region for partnership activities						
36	Increasing the benefits of partnership						
37	Capturing the long term benefits from the partners as a manufacturing company						

and change, leading to diminishing the success of strategies within a scenario formed from different combinations of hypotheses. Conversely a strategy could emerge as the key one for the scenario by showing a dominant character. Based on these, the strategies were assessed to find out the key ones within a framework whose boundaries were determined by the scenario.

In the strategy assessment step, the key strategies for each scenario were determined using the MICMAC method. The strategies listed for all the situations or hypotheses taking place in one scenario were brought together to form a structural matrix that had strategies in both rows and columns. The experts identified the

impact of the strategy in the row on that in the column, and the matrix was then subjected to various matrix multiplications until reaching a stable state. Based on the matrix, the influence of the dependency chart was drawn, which had the total values of influence on the y-axis and those of dependencies on the x-axis. The chart was then divided into 4 quadrants and the key group of strategies identified based on the statement of Godet, which said that the key variables could be selected based on their locations within this chart. In this study, the variables in the second quadrant which were highly influential and dependent were taken as the 1st group of key variables. The variables that are not in the second quadrant but closely located to which were taken

as the 2nd group of key variables, with the assumption that they showed similar behaviour to the key variables. Finally, in the analysis, the variables in the first quadrant were taken as the 3rd group of key variables because of their highly influential nature. **Figure 2** shows the influence of the dependency chart and key strategies for the scenario: “Fashionable Green Products”, as an example in which the strategies were stated with numbers and the key strategies given with their numbers at the bottom.

The same procedure was applied for the 4 scenarios and the findings are given in **Table 3**, in which the strategies are represented with only the numbers that correspond with those of the strategies in

Table 2. The numbers in the cells state the group that the strategy belongs to and the X sign states that the strategy was involved in the scenario, but it was not found to be the key strategy within that scenario according to the results of MIC-MAC.

According to **Table 3**, the findings for each scenario were summarised below. In the scenario “Fashionable Green Products” strategies: ‘Doing proactive design activities’, ‘Using environmentally friendly raw material’ and ‘Decreasing the expansion investment’ were found to be located in the second quadrant, which meant that they were destabilised and influenced by the other strategies. Besides this ‘Using eco-labels on products’ and ‘Decreasing the raw material costs’ were selected as the secondary key strategies because of being closely located to the second quadrant. ‘Renewing the production technologies’, ‘Building collaborative relationships for the vertical supply chain’ and ‘Decreasing the production cost’ were noted to have the highest influence on the other strategies. Within this scenario, strategies related with environmentally friendly production were highly dynamic, whereas those related with low cost production were highly influential among the others. This meant if the industry makes a decision to produce strategies for being successful in this scenario, it should first aim at doing proactive design activities by using environmentally friendly raw materials, but ones less costly provided by trustworthy suppliers. Besides the industry should focus on lowering costs by improving production planning and using renewed production technologies.

In the scenario “Regional fast fashion brands”, only the 1st and 3rd group of strategies were identified. Among the 1st group of key strategies, there were ‘Choosing the brand method-brand partnership’, ‘Conducting market research in order to determine the target market and their needs via Segmentation’, ‘Identifying the brand identity and equity’ and ‘Determining the product type in the product

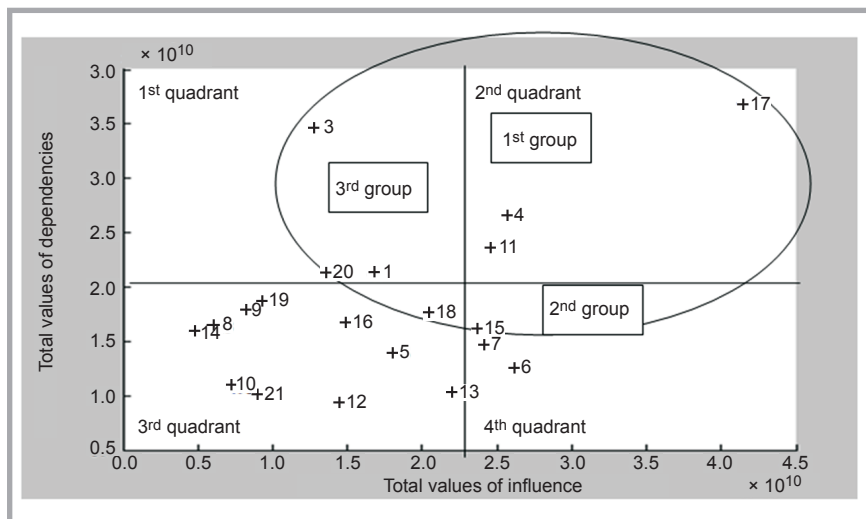


Figure 2. Influence dependency chart for the scenario - ‘Fashionable green products’.

- | | | |
|--|--|--|
| 1st group of strategies | 2nd group of strategies | 3rd group of strategies |
| 4: Doing proactive design activities, | 15: Usage of eco-labels, | 1: Renewing the production technologies, |
| 11: Usage of environmentally friendly raw materials, | 18: Decreasing the raw material costs. | 3: Establishing collaborative relationships for vertical supply chain, |
| 17: Cuts in investments. | | 20: Decreasing the production cost. |

portfolio’. The 3rd group of key strategies, which were highly influential in nature, included ‘Employing designers’, and ‘Establishing advertising activities’. Regarding this scenario, it was observed that most of the 1st group of key strategies belonged to the hypothesis related with brand building and the 3rd group of strategies were found to be related with that regarding design. Therefore branding and designing issues should be focused on for success in that scenario. In the scenario “Technological brands with shifts in production” strategies: ‘Cooperating with technology producers’, ‘Decreasing the expansion investments’ and ‘Making investments in R&D’ were found to be the 1st group of key strategies. Nevertheless ‘Using technological materials for products’, ‘Conducting market research in order to determine the target market and their needs via Segmentation’ and ‘Establishing advertising activities’ were the 2nd group of key strategies, whereas those like ‘Decreasing the production cost’ and ‘Renewing the production technologies’ comprised the highly influential 3rd group of key strategies. Thus the

strategies regarding technology intensive production were observed to give higher dynamism than those within this scenario under concern. On the other hand, the most influential strategies were selected from among those basically related with low cost production.

In the scenario “All in one”, the 1st group of key strategies were found to include at least one strategy for each hypothesis, except that related with branding such as ‘Making investments in R&D’ for the hypothesis related with producing technologically intensive products and ‘Doing proactive design activities’ for the hypothesis regarding designing a quick and large portfolio. Most of the strategies that created dynamism in the system were for the two hypotheses regarding technology intensive production and trading partnership activities. Therefore the strategies for developing partnerships and producing technology based garments were emphasised for this scenario. Beside these it was observed that the strategies ‘Decreasing the production cost’, ‘Renewing the production technology’ and ‘Estab-

Table 3. Key strategies developed for each scenario.

Scenarios	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	
Fashionable green products			3						X				3	1	X	X	X	X	X	X	1	X	X	X	1	X	1	2	X	3	X							
Regional fast fashion brands							X	1	1	1	3	3	3	3	3	1	3	X	3														3	3	X	X	X	X
Technological brands with shift in production patterns	X	1	3	2	X	1	X	X	2	X	X	2	3					X	3										1	X	X	3	X					
All in one	X	1	3	2	X	1	X	1	1	X	X	3	X	1	X	X	X	X	X	X	2	X	X	X	X	X	1	X	X	3	X	1	2	X	X	X	X	

lishing advertising activities' were highly influential.

The identification of key strategies for each scenario showed that the key strategies might change from scenario to scenario. These further analyses confirmed that some strategies created dynamism and some others were influential in the scenarios they were implemented for. This underlined the fact that in order to achieve success, assessing the strategies based on their influence and dependency characteristics was important before their implementation by enabling the industry to understand the key strategies in the scenarios [8] it was suggested to complete.

■ Conclusions

The aim of the study was to develop strategies for the Turkish apparel industry. An approach comprising two parts was proposed in order to establish a future prospective and to develop strategies for Turkey.

The modular structure of Godet's scenario methodology was utilised in the strategy development and assessment. Strategies were developed considering the possible future situations, which were hypotheses in Godet's scenario method, and then they were analysed and assessed considering their influential and dependency characteristics within the environment or scenarios they were proposed to be applied.

37 strategies for the Turkish apparel industry were developed for 6 hypotheses and 4 scenarios by experts. The strategies gave the ways of realization for the objectives defined for each hypothesis considering the Turkish industry and European market, with some possible suggestions for strategy development. Strategies especially developed for the integration of technology were strongly advised to be adopted because of their dynamic structure, whereas the low cost strategies were pointed out to be the most influential at the end of the strategy assessment. It was confirmed that the key strategies changed based on the environment or scenario they were suggested to be implemented for, revealing the importance of the assessment of strategies.

However, this study presented industry level strategies without going into detail

for company level strategies. The strategy expressions included general terms which can be adapted and specified by companies themselves. The company level strategies and action plans should be determined according to the structure of the company, the type of product the company is producing and the type of market the company is serving while considering the general scenarios, strategy options, and precautions about the key strategies and suggestions made by the experts presented in the study.



References

1. Tokatli N. Globalization and the Changing Clothing Industry in Turkey. *Environment and Planning* 2003; 35: 1877-1894.
2. International Trade Statistics Year Book, WTO, 2012.
3. Export Performance Evaluation Report of Textile Industry, ITKIB, 2000.
4. Export Performance Evaluation Report of Apparel Industry, ITKIB, 2012.
5. Kilince N. *Competitiveness Strategies in Turkish Textile Industry and An Investigation on the Strategies of Large Scaled Textile Companies* (in Turkish). PhD Thesis, University of Akdeniz, Antalya, 2001.
6. International Trade Statistics Year Book, WTO, 2011.
7. WTO Statistics Database.
8. Sarıcam C, Kalaoglu F, Polat S, Cassil NL. The Application of Godet's Scenario Methodology on Turkish Apparel Industry. *Fibres & Textiles in Eastern Europe* 2013; 2, 98: 7-12.
9. Lorange P, Morton MFS, Ghoshal S. *Strategic Control Systems*. Ed. West Publishing Company, MN, USA, 1986.
10. Jacobs D. *Mapping Strategic Diversity-Strategic thinking form a variety of perspectives*. Ed. Routledge, NY, USA, 2010.
11. Dyson RG. *Strategic Planning Models and Analytical Techniques*. Eds Dyson, R.G., John Wiley and Sons, England John Wiley and Sons, England, 1990.
12. Bateman TS, Snell SA. *Management Competing in the New Era*. 5th ed., Mc Graw Hill Irwin, NY, USA, 2002.
13. Jarke M, Bui XT, Carrol JM.. Scenario Management: An Interdisciplinary Approach. *Requirements Engineering* 1998; 3: 155-173.
14. Mietzner D, Reger G. Advantages and Disadvantages of Scenario Approaches for Strategic Foresight. *International Journal of Technology Intelligence and Planning* 2005; 1, 2: 220-239.
15. Jouvenel, HD. A Brief Methodological Guide to Scenario Building. *Technological Forecasting and Social Change* 2000; 65: 37-48.

16. Bradfield R, Wright G, Burt G, Cairns G, Van der Heijden K. The origins and evolution of scenario techniques in long range business planning. *Futures* 2005; 37: 795-812.
17. Keller J, von der Gracht AH. The Influence of Information and Communication Technology (ICT) on Future Foresight Processes-Results from a Delphi Survey, Technological Forecasting for Social Change (available online 4 August 2013).
18. Moayer S, Bahri PA, Nooraii A. Adaptive Neuro-Fuzzy Inference System for Generating Scenarios in Business Strategic Planning, *In proceeding of: Systems, Man and Cybernetics*, pp.109114, Montreal, 7-10 October, 2007.
19. Bergman J, Viljainen S, Kassi T, Partanen J, Laaksonen P. Managing the Exploration of New Operational and Strategic Activities Using the Scenario Method-Assessing Future Capabilities in the Field of Electricity Distribution Industry. *International Journal of Production Economics* 2006; 104: 46-61.
20. Wollenberg E, Edmunds D, Buck L. Using Scenarios to Make Decisions about the Future: Anticipatory Learning for The Adaptive Co-management of Community Forests. *Landscape and Urban Planning* 2000; 47: 65-77.
21. Schoemaker PJH. Scenario Planning: A Tool for Strategic Thinking. *Sloan Management Review* 1995; 36, 2: 25-40
22. Varho V, Tapio P. Wind Power in Finland up to the Year 2025-Soft Scenarios Based on Expert Views. *Energy Policy* 2005; 33: 1930-1947.
23. Dolek B. *Scenario Planning of E-Commerce Activities in Turkey* (in Turkish). Msc Thesis, Istanbul Technical University, Istanbul, 2002.
24. Polat S, Asan U. Scenario Based Competence Designation, Competence Perspectives on Managing Internal Processes. *Advances in Applied Business Strategy* 2005; 7: 51-77.
25. Goodwin P, Wright G. Enhancing Strategy Evaluation in Scenario Planning: A Role for Decision Analysis. *Journal of Management Studies* 2001; 38, 1: 1-16.
26. Rumelt RP. Note on Strategy Evaluation, 2000. Available at: <http://www.anderson.ucla.edu/faculty/dick.rumelt/Docs/Notes/StratEvaluation1999.pdf> (accessed 03.10.2013).
27. Schoemaker PJH. When and How to Use Scenario Planning: A Heuristic Approach with Illustration. *Journal of Forecasting* 1991; 10, 6: 549-564.
28. Godet M. The art of scenarios and strategic planning: tools and pitfalls. *Technological Forecasting and Social Change* 2000; 65: 3-22.

■ Received 08.10.2013 Reviewed 18.03.2014