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Manufacturing/marketing interface and conflict: an investigation in the Turkish manufacturing industry

Abstract

In today's rapidly changing business environment, manufacturing and marketing interface should be carefully managed in order to run successful business operations. Despite a growing interest in this topic, there has been a lack of research about the issue both in operations management and marketing literature. Therefore, the purpose of this study is to fulfill the gap in literature by investigating the reasons and proposing the solutions for the conflict between these departments of the leading firms in the Turkish manufacturing industry. With the help of survey and in-depth interviews, the strategic priorities, currently applied and desired conflict resolution techniques and the department which is perceived to be more responsible for conflicts are investigated. The most important strategic priority is found to be quality for both departments. Interpersonal communication as the most frequently applied technique for conflict resolution is emphasized by both departments, whereas the desired conflict handling styles differ. The employees of manufacturing department propose common goal setting, empathy and feedback as the keys to conflict resolution, whereas the employees of marketing department mostly believe that systematic rules and good planning are the most appropriate and desired methods. The importance of interpersonal communication as a potential conflict resolution technique in the form of compromise is also emphasized by both departments. This result can be attributed to the Turkish culture in which informal relations are highly valued and shows that the formalization of the relations in the Turkish manufacturing industry is still at a developing stage.

Keywords: manufacturing/marketing interface, manufacturing/marketing conflict, manufacturing/marketing integration, Turkish manufacturing industry.

JEL Classification: M1, M11, M31.

Introduction

Manufacturing and marketing are the functions of business where harmony should be sustained in order to run successful business operations. However, these two functions have adverse and most of the time conflicting priorities that have to be dealt by management. This problem has received much more importance today compared to the past due to the many relatively new concepts in business literature such as Total Quality Management (TQM) and Business Process Reengineering (BPR), which focus on internal and external customer satisfaction, therefore on integrative decision making (Parente, 1998). Product development, process development, marketing/sales planning and manufacturing planning decisions also represent the areas where the strategic decisions have to be made by joint decision of the manufacturing and marketing departments (O'Leary-Kelly and Flores, 2002). It is also pointed out in the literature that certain marketing decisions like pricing and positioning require understanding the consequences of the operational issues (Karmarkar, 1996).

The potential conflict between manufacturing and marketing exists especially in today's rapidly changing business environment. However, managing the manufacturing/marketing interface is crucial since the two functions assist and reinforce each other. Both functions should have an appropriate and shared understanding of the firm's competitive strategy to

enable communication and cooperation with each other (Montgomery and Hausman, 1985). For instance, manufacturing department needs to understand marketing with respect to opportunity costs arising from some manufacturing choices. By the same token, marketing should understand the limits and capabilities of manufacturing toward marketing's requirements.

In the light of this debate, this paper examines the reasons and possible solutions of conflicts between manufacturing and marketing departments of the leading firms of the Turkish manufacturing industry by using survey. This paper is organized as follows. In the first section, the theoretical framework of manufacturing-marketing interface is discussed. The remainder of the paper is dedicated to the conflicting areas of manufacturing and marketing departments, the ways to achieve integration between these two departments, the discussion of the methodology including the sample, the data collection and the empirical results. The discussion, managerial implications and directions for future research conclude the paper.

1. Theoretical framework of manufacturing-marketing interface: literature review

There has been a growing interest in operations management literature with respect to the need of harmony between manufacturing and marketing (M/M) strategies, though manufacturing-marketing interface has been under-emphasized in marketing strategy research and is absent in manufacturing

strategy research (Hausman et al., 2002). Moreover, shortened product life cycles, technological advancements in products and processes, globalization of markets, consumerism and the rapidity of change accelerated the need to link M/M strategies (Hausman et al., 2002). It is also pointed out in the literature that the lack of harmony between these strategies leads to interfunctional conflict, which, in turn, results in less-than-optimal business performance (Hayes and Wheelwright, 1984).

There are many studies in the literature discussing M/M interface (e.g., Montgomery and Hausman, 1985; Deane and McDougall, 1991; Zanon and Filho, 2007). In one of these studies, Montgomery and Hausman (1985) mentioned numerous interfaces between the two functions, which are summarized as:

- ◆ **Strategy:** The marketing and manufacturing strategies of any firm should be in accordance with each other to assure harmony. Some companies have coupled a low cost manufacturing strategy with a highly differentiated, high cost marketing strategy which creates entry barriers for competitors. In this case, the low cost manufacturing strategy enables the company to keep close to competitors in cost, while offering expensive marketing alternatives in order to have considerable value in the market place. In another study (Hausman et al., 2002), the strategic importance of the simultaneous M/M decision making has been emphasized with respect to strategy formulation like market driven pressures to accelerate new product development and to supply chain management in the form of make/buy decision-making. Hayes and Wheelwright (1984) argued that manufacturing process life cycles should be matched to the product life cycle. As products evolve from low to high volume and standardization, processes should evolve from job shop to continuous flow. Since the stage in a product's life cycle is partly a function of the marketing strategy, the need for coordinated interaction between marketing and manufacturing strategies is crucial (Hayes and Wheelwright, 1984). Cross-functional strategy implementation is also vital in integrating systems like JIT, TQM, CIM and QFD (Chase and Aquilano, 1992).
- ◆ **Forecasting:** In the short term, market forecasts are needed to develop production schedules to balance the needs of marketing for rapid and reliable delivery. Forecasting is also important in the long run to satisfy the need for steady work flow and realistic response times and the needs of finance for low costs and minimum inventory.
- ◆ **The order-delivery cycle:** This is especially important in the short term with respect to the one who makes the commitments, the side who is responsible for the financial cost of carrying the finished goods and to the length of the period during which no manufacturing schedule changes are made.
- ◆ **Product line:** Marketing requires variety in the product line and tailoring to customer segments, where flexible manufacturing system with economic order quantities is a good tool in doing so. However, the manufacturing department requires few product lines with large batch size. This interface also points out one of the major conflicting issues between manufacturing and marketing departments.
- ◆ **Quality:** From the viewpoint of manufacturing, quality is defined as “conformance to specifications” (Russell and Taylor, 2003), whereas marketing’s definition of quality is “the totality of features and characteristics of a product that bear on its ability to satisfy needs” (Kotler, 2000). Although these two definitions focus on different points, management should perceive these definitions as complementary to each other in defining quality in order to run successful business operations.
- ◆ **Customer service:** It is an extension of both production and marketing in its interaction with customers and its ability to assure the customer that the company will solve the problems in post-sale period.

In their study, Zanon and Filho (2007) proposed a method to sustain a strategic consensus between manufacturing and marketing departments, where strategic consensus is defined as “a similar understanding among the managers regarding the importance and performance of disaggregated strategic priorities” (Zanon and Filho, 2007). In another study, the manufacturing and marketing interface has been analyzed from the viewpoint of design strategy (Fitzsimmons, 1991). However, the use of these methods remains as a question mark, unless it is applied to real-world business problems.

As manufacturing and marketing functions are the two main functions of a business, any issue at this interface involves the core of the company (Shapiro, 1977). Walton and Dutton (1969) proposed that “interface conflict will be managed best where the attention devoted to interface management corresponds to the degree of differentiation between departments” and that, as differentiation between departments increases, also the interface management techniques become more elaborate and complicated (Walton and Dutton, 1969).

It is also worth mentioning that the interface of M/M brings the necessity of an interdisciplinary approach, where the management environment and the structure should be improved by making use of multifunctional teams on the industry side (Montgomery and Webster, Jr., 1997). Through this way, the barriers between functions can be broken. This is not only a necessity for business, but also an important factor for management, both in theory and practice, in today's world.

2. The conflicting areas of manufacturing and marketing

Although conflict refers to a negative meaning in general, it can be a good opportunity for organizational success if and only if it is well managed. This fact also explains why there exist different thoughts about conflict in the literature. According to the traditional view of conflict, all conflicts are harmful and should be avoided (Robbins, 2001). Human Relations School advocates that conflict is natural and inevitable, whereas the interactionist approach views conflict as a positive force for a group to perform effectively. Therefore, the conflict that supports the goals of the group and improves its performance is called as *functional conflict*, whereas conflict that hinders group performance is called as *dysfunctional conflict* (Robbins, 2001).

In organizations, conflicts most frequently occur among different departments. Such intergroup conflict occurs for three basic reasons, namely the need for joint decision making, a difference in goals and a difference in perceptions of reality of the departments (March and Simon, 1975). Organizational conflict is described as "the inter-departmental behavior that occurs when one department perceives that other departments are blocking its goal achievement or expectation" (Kwahk and Kim, 1998). The conflict between manufacturing and marketing departments can, therefore, not only be an example of dysfunctional conflict (Shapiro, 1997), but also be an example of horizontal conflict, as it occurs between individual departments at the same level (Kwahk and Kim, 1998).

The now-class manufacturing strategy literature typically deals with the dimensions of the following manufacturing priorities (Hausman and Montgomery, 1997):

- ◆ cost (lowest total cost);
- ◆ quality (conformance to specifications);
- ◆ dependability (meeting delivery/availability commitments);
- ◆ short-term flexibility (adapting to changing product volume and mix requirements);
- ◆ innovation (rapid introduction of new products and features).

While these factors represent the manufacturing priorities, there also exist the marketing strategy priorities, which focus on the aspects of the product that the consumer is willing to have. These can be listed as follows (Hausman and Montgomery, 1997):

- ◆ price;
- ◆ quality (reliability, durability);
- ◆ availability (response time mean and variance);
- ◆ variety (width of product line, options, customization);
- ◆ features (quality residual, vs. competition, first to market);
- ◆ post-sales services (including spare parts availability).

Even though the priorities of manufacturing and marketing departments seem to be different, it is important to keep in mind that they are not independent of each other, which, in turn, results in conflict between these two strategies. As an example, the success of post-sales services, to a large extent, depends on meeting delivery/availability commitments.

In their research, Hausman and Montgomery (1991) presented empirical evidence for the linkages between marketing and manufacturing strategies and the relation between tactics in the corresponding functions. With the use of a survey conducted with 178 respondents, the authors analyzed the relation between operations and marketing priorities. This study also enabled making cross-cultural comparison due to the presence of Japanese and American respondents.

As Shapiro (1977) pointed out, capacity planning and long-range sales forecasting, production scheduling and short-range sales forecasting, delivery and physical distribution, quality assurance, breadth of product line, cost control, new product introduction and adjunct services such as spare parts inventory support, installation and repair also represent potential areas of conflict between manufacturing and marketing departments (Shapiro, 1977). These areas also reveal the difference in the goals of the departments. For instance, manufacturing department prefers to keep inventory at a minimum level, while marketing department requires that every item would be in inventory, whenever needed.

It is stated in the literature that one primary reason for the manufacturing/marketing conflict is that the two functions are evaluated on the basis of different criteria and receive awards for different activities (Shapiro, 1977). On one hand, the marketing people are judged on the basis of profitable growth of the company in terms of sales, market share and new markets entered. On the other hand, the manufacturing people are evaluated on running a smooth operation at

minimum cost. The author also refers to two different data sources that each function needs to be named as marketing (i.e., qualitative) data and manufacturing (i.e., quantified) data, the difference in the orientation and experience of manufacturing and marketing personnel, as reasons of conflict between two departments (Shapiro, 1977).

After discussing the interface and conflict between manufacturing and marketing departments, the methods of solving the conflict between these departments are to be analyzed in the following section.

3. Achieving integration between manufacturing and marketing

When organizational conflict occurs, the strategies named as *concession* (the conflicting parties make a concession by giving up their goals), *compromise* (the conflicting parties make a compromise by lowering their goal level) and *intervention* (a third party makes an intervention by identifying the intervention driver and weakening the conflict driver) are proposed for conflict resolution (Kwahk and Kim, 1998). After representing the general solutions for an organizational conflict, the precautions that can be taken for conflict resolution between manufacturing and marketing departments in particular can deeply be analyzed.

The success of the firm in international arena depends, to a great extent, on how well the firm can manage the coherence between manufacturing and marketing functions. It has also empirically been demonstrated that business performance is enhanced when manufacturing and marketing work harmoniously together for goal attainment (Hausman et al., 2002).

The competitive advantage at the manufacturing and marketing interface, in particular, can be sustained via organization, information systems and people (Montgomery and Hausman, 1985). In organizing for new product development, many companies are moving to a team approach where R&D, manufacturing and marketing are all represented through a product's development and market introduction. The team assures that marketing and manufacturing issues will receive a proper attention early on and provides a cross-sectional, shared ownership of problems. The proper utilization of information systems through the distributed sharing with customer of common data files on orders and delivery schedules also facilitates smoothing the interface. Finally, manufacturing and marketing managers should understand each other better if there is close coupling between these functions. Cross-functional training, work experience and rotating marketing and production people within the factory can substantially enhance understanding and cooperation

(Montgomery and Hausman, 1985). The empirical evidence also shows the importance of interfunctional communication between sales and production (Clare and Sanford, 1984).

As mediators, managers have an important role in managing the M/M conflict. The crucial role of top management in finding conflict resolution has also been emphasized in other studies in the literature (Clare and Sanford, 1984). If the overall performance of two units is considered to be inadequate, then higher executives might try to place particular emphasis on observable, short-run measures of performance for each subunit, where performance might be operationalized by productivity, adaptability or efficient use of all resources, including human resources (Walton and Dutton, 1969). A good beginning is the development of clear and straightforward corporate policies (Shapiro, 1977). Top management's role, in this case, is important in finding out the priority of the company. In the final analysis, the company, itself, should decide about its priorities in policy making, whether it is going to be manufacturing or marketing oriented. That is to say, if on-time delivery is determined as a priority, then manufacturing department has to emphasize high inventory and bear this burden. In the end, whether the target is reached or not has to be also controlled so that the company can decide about its effectiveness.

It is stated in the literature that a common evaluation and reward system to stress interfunctional cooperation is also an effective way of forming common policies to eliminate conflict. In his research, Shapiro (1977) gave an example of judging marketing managers on the basis of variables, which are important for manufacturing, such as sales forecasting instead of sales quota.

Quality function deployment (QFD) process can be a tool for managing the conflict between manufacturing and marketing departments, as it focuses on the translation of the voice of the customer into technical requirements at every stage of design and manufacture (Russell and Taylor, 2003), which necessitates manufacturing and marketing departments to work together.

4. Empirical study: the conflict between manufacturing and marketing departments in the Turkish manufacturing industry

As to the research concerning the conflict between manufacturing and marketing, many of the studies have been conducted in U.S.A. No empirical study in Turkey has been known to us in the literature, though there has been one theory-based study (Soyuer, 2003). Therefore, the main purpose of this study is trying to fulfill this gap by investigating the

reasons and finding out the possible solutions for the conflict between manufacturing and marketing departments of the leading firms in Turkish manufacturing industry.

4.1. A general outlook to the Turkish manufacturing industry. According to IMF World Economic Outlook Report 2005, Turkey is among the twenty biggest economies of the world. In 2005, Turkish economy was the 19th biggest economy with a GDP of 362.5 billion dollars (<http://www.8sutun.com/node/11590>). The industry's share in GDP was 23.8% and 24.4% for the years 2004 and 2005 respectively (<http://www.tuik.gov.tr>). The manufacturing industry has an important share in Turkish economy in general and in Turkish industry in particular. In 2002, the share of the manufacturing in GDP was 20%, which corresponds approximately to 37.1 billion dollars (<http://www.dpt.gov.tr>). The share of the manufacturing in GDP was 13.9% in 2004 (http://devdata.worldbank.org/AAG/tur_aag.pdf). Although there has been a decline in the share of manufacturing in GDP in recent years, which can partly be attributed to the increase in the share of services, it can be concluded that the manufacturing industry still constitutes an important part of GDP in Turkey.

4.2. Methodology. In order to investigate the strategic priorities of manufacturing and marketing departments and to identify the possible conflicting areas, the research has been carried out by using a survey and interviewing with the employees who are working in manufacturing or marketing departments of the leading manufacturing firms in Turkey. The questionnaire used is a shortened and simplified version of the questionnaire which was originally developed by Hausman and Montgomery (2002).

The questionnaire consists of three sections. In the first section, some descriptive information, such as work experience of the respondents and the pace of changing technology and the customer needs have been investigated. In the second section, the respondents have been required to rank the current and desired strategic priorities in their departments. In the following section, the performance objectives and measures of each department have been questioned. Moreover, the respondents have also been asked on which department they think interdepartmental conflicts mostly arise from. In the last section, the currently applied and the desired conflict handling styles have been asked to find out whether they differ from each other. The answers given to these questions are summarized in the results section.

In this study, the population consists of employees who are working in manufacturing and marketing department of firms. The sample firms have been

chosen with respect to availability from Turkish manufacturing industry, which are the leading firms of their sectors, named as automotive, aeronautical, defense, non-alcoholic beverage and food manufacturing sectors. In this manner, about 100 employees of manufacturing and marketing departments have been contacted. After a preliminary elimination, a number of 46 questionnaires have been found to be useful. In addition to survey, respondents have also been interviewed to clarify the answers given to questionnaire and to identify any missing points which have not been covered in the survey.

The number of respondents working in different departments, are nearly equal, with 26 people working in manufacturing and 20 people in marketing department. The minimum work experience of employees is 3 years for respondents for both departments, whereas the maximum work experience of respondents is 40 years for manufacturing and 41 years for marketing department. The average work experience is 21 years for respondents in manufacturing and 11.6 years for respondents in marketing departments. These descriptive statistics are summarized in Table 1.

Table 1. The summary of some descriptive statistics of respondents

	Number of respondents	Minimum work experience	Maximum work experience	Average work experience
Manufacturing department	26	3 years	40 years	21 years
Marketing department	20	3 years	41 years	11.3 years

The questionnaire also contained questions in a scale of 1 to 7, 1 being “very slowly changing” and 7 being “very fast changing” regarding how fast the customer needs and wants as well as the product and process technologies change in the investigated sectors. As the results show, the fastest changing factor is the customer needs and wants, followed by product technology, whereas the most stable factor is found to be the process technology. These results are summarized in Table 2.

Table 2. The pace of customer needs and wants, product and process technologies

	Minimum	Mean	Maximum	Std. deviation
Changing customer needs and wants	2 years	4.66 years	7 years	1.23
Product technology	2 years	4.61 years	7 years	1.48
Process technology	1 year	3.97 years	7 years	1.40

4.3. Results and discussion. According to the results of the survey, 42.9% of the employees in manufacturing department think that quality is currently their first strategic priority, followed by price (28.6%). Three factors, variety, response rate and product attributes are perceived to have the same priority in manufacturing strategy (14.3%), whereas after sales services are seen to have the least importance (8.3%).

For marketing department, it is seen that quality is again the number one priority with having 44.4% of the respondent's answer. After quality, price is cited as the second important attribute, with a percentage of 27.3, followed by product attributes (26.7 %) and variety (5.6 %). Surprisingly, after sales services and response rate are seen as the least important factors in current marketing strategies for marketing department.

Quality is found to be the most important strategic priority for both departments for the sample firms. This result can be interpreted in a way that quality, as being the most important strategic priority for both departments, may act as a facilitator for the common policy formulation for these firms. Consequently, common policy formulation, which is an important way of achieving integration between these two departments, would be easier to formulate.

According to the answers given to the question "what should be the strategic priorities of the manufacturing department", quality is again found to be the most important strategic priority with a percentage of 61.9. Product attributes (19%), price and product variety (9.5% each) and response rate (4.8%) are the other desired strategic priorities of manufacturing department respectively.

From the marketing point of view, it is again seen that quality is cited as the most important factor with a percentage of 38.9 among the desired strategic priorities. Following quality, after sales services (33.3%), product attributes (22.2%), price (16.4%), response rate (11.1%) and variety (5.6%) are ranked as the other desired marketing strategy priorities.

In the next part of the questionnaire, the coordination between manufacturing and marketing departments and how well these two departments work together are investigated. From the manufacturing point of view, only 5.3% of the employees are satisfied with the current level of coordination, whereas from the marketing perspective, 20% of the employees think that the coordination between these two departments is quite well. Moreover, 63.2% of the manufacturing personnel think that these two departments have poor relationship, whereas the employees thinking likewise are 13.5% in marketing department. Therefore, it may be concluded that employees of the manufacturing department perceive a

worse interdepartmental relation than marketing people do. Nevertheless, when asked directly about the level of conflict between these two departments specifically, only 15.9% of the manufacturing employees and 20% of the marketing employees state that there is high level of conflict. This may be due to the fact that people are reluctant to reveal the problems when they are asked directly.

One of the important aspects of the survey is to reveal the department from which conflict stems. Most of the respondents (47.1%), both from manufacturing and marketing departments think that conflict arises from both departments equally. Respondents, those thinking that problems arise from manufacturing department, constitute 41.1%, and those thinking that problems arise from marketing department constitute 11.8% of the sample.

In order to identify the currently applied conflict resolution styles, open ended questions are asked and interviews are made. After applying content analysis, from the manufacturing perspective, personal dialog and informal communication are found to be the most applied methods (39.4%) for conflict resolution. Following informal communication, the second way to solve the problem is a group of activities consisting of scheduled meetings, coordination and internal training with a percentage of 29.3. Other conflict resolution styles, which are deducted from the answers given to questions, are using a liaison person and interference of upper management (18%) and with internal audits and controls (13.3%).

From the marketing perspective, it is seen that 76.2% of conflict is solved via informal relations and personal interaction. In addition to personal relations, 9.5% of the problem is solved using a liaison person, whereas 14.3% of the conflict is handled by formal negotiation and scheduled meetings.

As seen from these results, it might be inferred that the most frequently applied conflict resolution technique is to use informal and personal relations for both departments. However, employees working in marketing department rely more on personal relations than manufacturing people do. It is also seen that formal methods and scheduled meetings are also among the major conflict resolution techniques used by manufacturing personnel. Nevertheless, employees working in both departments are not totally satisfied with the current problem solving methods.

When asked about the desired conflict handling methods, 32.7% of people working in manufacturing department believe that common goals should be set and the two departments should work according to these goals. Following common goal setting, 24.5% of the respondents claim that empathy and

feedback are the keys to solve conflict, whereas 20% of respondents emphasize the need for the development of better information systems, the need of designing matrix organizations and task groups.

It is also found that employees of the marketing department mostly believe that systematic rules and good planning are the most appropriate and desired methods for conflict resolution with a percentage of 41.7. Following planning, setting common goals (25%), getting tasks properly done (16.6%) and other uncategorized methods are also cited by the respondents as desired methods for conflict resolution between marketing and manufacturing departments.

The summary of results can be found in the table below (Table 3).

Table 3. Summary of the results

	Manufacturing department	Marketing department
Strategic priorities		
#1	Quality (42.9%)	Quality (44.4%)
#2	Price (28.6%)	Price (27.3%)
#3	Variety, response rate, product attributes (14.3% each)	Product attributes (26.7%)
Desired strategic priorities		
#1	Quality (61.9%)	Quality (38.9%)
#2	Product attributes (19%)	After sales services (33.3%)
#3	Price, product variety (9.5% each)	Product attributes (22.2%)
Level of coordination		
Good level of coordination	5.3%	20%
Poor coordination	63.2%	13.5%
High level of conflict	15.9%	20%
Conflict handling styles		
#1	Personal dialog and informal communication (39.4%)	Personal dialog and informal communication (76.2%)
#2	Scheduled meetings, coordination and internal training (29.3%)	Formal negotiation and scheduled meetings (14.3%)
#3	Liaison person and top management's interference (18%)	Liaison person and top management's interference (9.5%)
Desired conflict handling styles		
#1	Common goal setting (32.7%)	Systematic rules and good planning (41.7%)
#2	Empathy and feedback (24.5%)	Common goal setting (25%)
#3	Better information systems (20%)	Getting tasks properly done (16.6%)

According to these results, it is seen that the strategic priorities and currently used conflict handling styles of manufacturing and marketing departments are not totally different from each other in the sample firms of Turkish manufacturing industry. From the

manufacturing perspective, even though the current conflict solving technique is via personal relations, scheduled meetings and coordination, the desired conflict resolution methods are found to be common goal setting and empathy. On the other hand, from the marketing point of view, the current problem solving technique is also mainly based on personal relations, whereas the employees of marketing department believe that the conflict level between marketing and manufacturing departments can be minimized by establishing the common goals and formulating common strategies. This might be a consequence of difference in departmental cultures. Marketing department is close to customer by nature and therefore is more human oriented, whereas manufacturing department is operation focused with a minimum level of human interaction.

Conclusion

This study can be considered as a preliminary attempt to pay attention to conflict between manufacturing and marketing departments and to find out the possible solutions to the problem for the firms in the Turkish manufacturing industry. The way the leading Turkish firms actually follow to overcome this problem has also been investigated.

In all of the sampling firms, quality has been found to be the number one strategic priority. This result is also consistent with the finding of another study, which has been conducted in the Turkish manufacturing industry (Ulusoy et al., 2007).

The employees working in manufacturing and marketing departments emphasized the importance of inter-personal communication in the form of personal dialog and informal communication, which is also a potential conflict resolution technique named as compromise, as the most frequently applied technique for conflict resolution. This result can be attributed to the Turkish culture in which informal relations are highly valued and shows that the formalization of the relations in the Turkish manufacturing industry is still at a developing stage, compared to Western world. The specific conclusions of this study cannot be generalized with respect to other populations.

Informal interfunctional contact, in the form of meetings from all departments, has been shown as a remedy in finding the solution to conflict between manufacturing and marketing departments in the literature (Shapiro, 1977), which is also found to be in harmony with the result of this study.

One of the results of this study is that the two departments have different preferences for conflict resolution techniques. Manufacturing personnel emphasize common goal setting, empathy, feedback and establishing better information systems and matrix

organization, whereas marketing personnel believe in setting systematic rules, common goals and properly done tasks as desired conflict resolution techniques.

There are certainly some limitations of this study. Although there are difficulties in data collection phase in carrying out such a study in Turkey, the number of the respondents and the number of the subsectors of industry can be increased.

This study has also some other implications for the future research. The future research can concentrate on other industries and countries to enable cross-cultural comparisons. In addition, the conflict between other departments such as finance and human resource management departments can also be investigated so that conflict in organizations can be examined within system approach.

References

1. Chase R.B., N.J. Aquilano. *Production and Operations Management: A Life Cycle Approach*. – Boston: Richard D. Irwin, Inc., 1992.
2. Clare D.A., D.G. Sanford. *Cooperation and Conflict Between Industrial Sales and Production // Industrial Marketing Management*, 1984. – No. 13. – pp. 163-169.
3. Deane R.H., P.P. McDougall. *Manufacturing and Marketing Interdependence in the New Venture Firms: An Empirical Study // Journal of Operations Management*, 1991. – No. 10/3. – pp. 329-343.
4. Fitzsimmons J.A., P. Kouvelis, D.N. Mallick. *Design Strategy and Its Interface with Manufacturing and Marketing: A Conceptual Framework // Journal of Operations Management*, 1991. – No. 10/3. – pp. 398-415.
5. Hausman W., D.B. Montgomery. *The Manufacturing/Marketing Interface: Critical Strategic and Tactical Linkages // Proceedings of the Perspectives in Operations Management Conference*, 1991. UCLA.
6. Hausman W., D.B. Montgomery. *Market Driven Manufacturing // Journal of Market Focused Management*, 1997. – No. 2. – pp. 27-47.
7. Hausman W., D.B. Montgomery, A. Roth. *Why Should Marketing and Manufacturing Work Together? Some Exploratory Empirical Results // Journal of Operations Management*, 2002. – No. 20/3. – pp. 241-257.
8. Hayes R.H., S.C. Wheelwright. *Restoring Our Competitive Edge: Competing Through Manufacturing*. – New York: John Wiley & Sons., 1984.
9. Karmarkar U.D. *Integrative Research in Marketing and Operations Management // Journal of Marketing Research*, 1996. – No. 33. – pp. 125-133.
10. Kwahk K.-Y., Y.-G. Kim. *A Cognitive Model Based Approach for Organizational Conflict Resolution // International Journal of Information Management*, 1998. – No. 18/6. – pp. 443-456.
11. Kotler P. *Marketing Management*. – Prentice Hall International Publishing, 2000.
12. March J.G., H.A. Simon. *Organizations*. – U.S.A.: John Wiley & Sons, Inc, 1958.
13. Montgomery D., W. Hausman. *Managing Marketing/Manufacturing Interface // The PA Journal for Management*, 1985. – No. 4. – pp. 3-11.
14. Montgomery D., F.E. Webster, Jr. *Marketing's Interfunctional Interfaces: The MSI Workshop on Management of Corporate Fault Zones // Journal of Market Focused Management*, 1997. – No. 2. – pp. 7-26.
15. O'Leary-Kelly S.W., B.E. Flores. *The Integration of Manufacturing and Marketing/sales Decisions: Impact on Organizational Performance // Journal of Operations Management*, 2002. – No: 20. – pp. 221-240.
16. Parente D.H. *Across the Manufacturing-marketing Interface Classification of Significant Research // International Journal of Operations & Production Management*, 1998. – No. 18/2. – pp. 1205-1222.
17. Robbins S.P. *Organizational Behavior: Concepts, Controversies and Applications*. – New Jersey: Prentice-Hall, Inc., 2001.
18. Russell R.S., B.W. Taylor. *Production and Operations Management*. – New Jersey: Prentice-Hall, Inc., 2003.
19. Shapiro B.P. *Can Marketing and Manufacturing Coexist? // Harvard Business Review*, 1977. – pp. 104-114.
20. Soyuer H. *İsletmelerde Üretim ve Pazarlama Fonksiyonlarının Entegrasyonu: Bilgi Temeline Dayalı Sistem Butunluğu // III. Üretim Araştırmaları Sempozyumu Bildiriler Kitabı, TC İstanbul Kültür Üniversitesi Yayınları, İstanbul, Turkey, 2003. – pp. 529-535.*
21. Ulusoy G., D. Cetindamar, H. Yegenoglu, C. Bulut. *An Empirical Study on the Competitiveness and Innovation in Four Sectors of the Turkish Manufacturing Industry // Proceedings of 14th International Annual European Operations Management Conference, Bilkent University, Ankara, Turkey, 2007. – pp. 1-10.*
22. Walton R.E., J.M. Dutton. *The Management of Interdepartmental Conflict: A Model and Review // Administrative Science Quarterly*, 1969. – No. 14/1. – pp. 73-84.
23. Zanon C.J., A.G. Filho. *Marketing-Operations Interface: Proposing a Method that Fosters Strategic Consensus // Proceedings of 14th International Annual European Operations Management Conference, Bilkent University, Ankara, Turkey, 2007. – pp. 1-10.*
24. *Türkiye Dünyanın 17'inci Büyük Ekonomisi*. Retrieved on August 28, 2007 from <http://www.8sutun.com/node/11590>
25. *Sector Profiles of Turkish Industry: A General Outlook*. Retrieved September 28, 2004 from <http://www.dpt.gov.tr/>
26. *Turkey at a glance*. Retrieved August 28, 2007 from http://devdata.worldbank.org/AAG/tur_aag.pdf
27. *Ana faaliyet kollarına göre Gayri Safi Yurt İçi Hasıla* Retrieved September 3, 2007 from <http://www.tuik.gov.tr/VeriBilgi.do>