Journal of Global Strategic Management | V. 10 | N. 1 | 2016-June | isma.info | 67-77 | DOI: 10.20460/JGSM.20161022387

HOW COMPETITIVE STRATEGIES, CHANGE MANAGEMENT APPLICATIONS, AND INFORMATION SYSTEM INFLUENCE FIRM PERFORMANCE

***Songül ZEHIR**
*Gebze Technical University

ABSTRACT

Turkey is a developing country in Eastern Europe that is working toward integrating into the European Union (EU). In particular, after the 2002 election, Turkey's new government has accelerated integration processes and enacted new integration laws for organizations operating in Turkey. The driving forces of integration and technological developments have increased the intensity of competition in Turkey and have led to a more turbulent and more dynamic environment in the country. Firms' executives, therefore, must adjust their strategies in order to integrate into the EU and survive in a competitive and dynamic environment. This survey is conducted on 188 executives of different firms in Turkey.So we manage to examine the effects of "change management applications," "competitive strategies" followed by firms and "information system," used in firms during the EU integration process of the Turkish firms. In this paper, we have examined the relationships between competitive strategies, the effectiveness of change management applications and information systems, and firm performance. Path analysis was used to form a model and to test the hypotheses.

Keywords: *Change management effectiveness, information system effectiveness, competitive strategies, firm performance*

INTRODUCTION

Turkey is a developing country in Eastern Europe that is working toward integrating into European Union (EU). In particular, after the 2002 election, Turkey's new government is accelerating integration processes and enacting new integration laws for organizations operating in Turkey. The driving forces of integration and technological developments are increasing the intensity of competition in Turkey and have led to a more turbulent and more dynamic environment. Firms' executives, therefore, are adjusting their strategies in order to integrate into EU and survive in a competitive and dynamic environment. Change management is one of those strategies. The integration process forces organizations to change themselves and adapt to new conditions in order to perpetuate their existence. Because environmental changes and its influences on organizations have increased, "change management" is now the most important weapon of executives (Hussey, 1998).

For successful change management and high performance, the effectiveness of a company's information system is a very important variable. Barbara (1995) indicates theoretical and practical findings in "Meeting of the Minds" about these issues. A review the management literature identifies 250-plus strategies firms may follow. These strategic alternatives need examination by categories and limitations of each (Eren, 2002, p.221). The present study reviews limited strategic alternatives and categorized those alternatives as competitive strategies.

COMPETITIVE STRATEGY

Competitive strategy is a primary process for achieving competitive advantage and subsequent performance outcome (Davis, Dibrell, and Janz, 2002). Competitive advantage today is realized through (1) offering superior products and service at lower cost and (2) implementing superior competitive strategies (Kotorov, 2001). Samuel K. Ho (1997) defines those competitive strategies through Sun Tze's *Art of Warfare*. His "winning model," based on Sun Tze philosophy, describes a winning business strategy against competitors; in other words, he describes the competitive strategies that carry a firm to the winner's position.

Formulating a competitive strategy requires a completely different set of tools and methods of analysis. While a production process can be improved without of knowledge of what other firms do, a competitive strategy cannot be formulated without such knowledge. Close relationship exists between the competition strategy that a company follows and their ultimate success. Thus, firms' executives should also produce new solutions to maintain competitive advantage and increase their capabilities to manage technological change (Boody and Macbeth, 2000). To increase competitive capabilities and to manage change and development in the direction of the company's objectives are very important for today's executives.

CHANGE MANAGEMENT EFFECTIVENESS

Change emerges at every phase of life, so in effect, our environment changes on a constant basis (Cornell, 1996). A central theme the business administration literature is that the world is changing at a faster and faster pace. Several reasons for this rapid pace of change is globalization, investment in IT technology (Maier and Kelly, 1997), and the rapid pace technological change (Ashton and Stacey, 1995).

Companies today are called to operate in a continuously and rapidly changing business environment. In order to survive in this new environment, organizations need to anticipate and understand the nature of the challenges and opportunities that lie ahead and respond to them in an intelligent manner. This means rethinking their strategy and process, reconfiguring their structure, and redefining the role of individuals and groups within the company (Prastacos, Söderquist, Spanos, and Wassenhove, 2002).

The issue of change management has been emphasized in the literature over the last 10 years. Because the pace of change modern businesses experience is phenomenal, they must abandon many of the principles that have guided generations of mangers. Instead, they must develop new objectives and rules that will enable them to successfully manage change and guide their transformation into a 21st century corporation (Prastscos et al., 2002). Hitt, Keats, and DeMarie (1998) indicate that the pace of change modern businesses experienced during the 1990s is closely connected to the explosion of information technology phenomenon – particularly with respect to information and telecommunication technologies, and also to the resulting globalization of economic activities.

Organizations worldwide appear to recognize the need for transformation and make efforts to implement changes deemed necessary to improve their competitiveness (Strebel, 1996). Thus, organizational change is not just an option; it constitutes a fundamental necessity for success within the new competitive landscape (Hamel and Prahalad, 1996; Illinitich, D'Aventi, and Lewin, 1996).

Organizational change is, admittedly, a complex and multi-dimensional phenomena and, in this sense, different points of view can offer varied and valuable insights into its effective implementation. Permanently changing conditions, globalizing economies, increasing specialization and knowledge intensity, training necessity, increasing competition, developing societies and economics require permanent change and development in firms (Dalay , Coşkun, and Altunışık, 2002). For example, the framework Prastacos et al.(2002) propose for managing change point to globalization and the technology explosion as external drivers for change. These drivers lead to changes involving the entire organization, not only in strategy or structure, but also managing people and processes as well. Essentially change in one domain unequivocally affects other domains. The literature stresses that actions for successfully managing change should take into account the primary management imperatives of flexibility and innovation. It is emphasized that change objectives cannot be successfully implemented unless the organization is endowed with two critical enabling factors: appropriate organizational capabilities and information technologies.

Change management, is an activity that takes place to manage the company's strategy, politics and processes, which an executive aims to implement in a firm (Dalay et al., 2002). Further, Hussey (1998) specifies the factors pushing change management are competition, consumers, technology, and new conditions (Hussey, 1998). Because the economic environment in which organizations operate is sometimes exposed to turbulence, the environment forces organizations to change or adapt to new conditions in order to perpetuate their existence. In recent years, because environmental changing and its influences on organizations have increased, change management has become one of executives' the most important weapons (Hussey, 1998).

Prastacos et al. (2002) state that there are actions for managing change that achieve sustained competitive advantage. It is very important for today's executives to increase their company's competitive capabilities

and to manage development strategies in the direction of the firm's objectives. Today, permanent and adequate change velocity is rather important than change necessity (Koçel, 2001).

INFORMATION SYSTEM EFFECTIVENESS

Information is crucial because it is believed to be a cornerstone for long-term company survival (Frishammar, 2002). Information can reduce uncertainty (Ginzberg, 1980), risks in decision-making (Gilad, 1996), is an important input in the process of strategy formulation (Lozada and Calantone, 1997), serves as a base for competence development (Hamrefors, 1996) and so on.

Information technology (IT) was used in monitoring employees' data in 1960s such that it essentially entered into business activity in those years (Martinson, 1997, p.35). Then, in 1980s, subjects related to management rather than technologies have been examined in information systems (IS) studies (Lai, 2001, p. 263). Frishammar (2002) defines information systems as the systems designed to enter information, store it, and facilitate retrieval.

Peter Drucker (1988) states that, "We came into a third transformation period. People abandon 'command-control' management style in department-based organizations. Instead, they are urged to direct their attention to information-based organizations. But to establish information-based organizations are still managerial issue of future" (Drucker, 1988). Drucker was writing at a time when the proliferation period of articles reviewing the information systems literature was just beginning. Today, however, many authors assert that establishing information-based organizations is one of today's crucial managerial issues.

Enterprises invest in information systems for many reasons, among them: (1) pressure to cut costs; (2) pressure to produce more without increasing costs; and (3) simply to improve the quality of the services or products the provide in order to stay in business (Legris , Ingham, and Collerette, 2003). As organizations continue to search for competitive advantages in an increasingly tight market, emerging technology is often considered an enabling factor for gaining such an advantage (Ives and Learmonth, 1984). Information technology (IT), if used effectively, provides organizations with the opportunity to engage customers in interactive communication, which is one factor that will lead to a successful organization (Wells, Fuerst, and Choobineh, 1999). Nasi (1999) defines information systems as a means of recording and communicating information to satisfy the requirements of all its users, the business activities in which they are engaged, and the objectives established for them. O'Brien (1995) states an information system is an organized combination of people, hardware, software, communication networks, and data resources that collect, transform, and disseminate information in an organization. He also specifies that IT is the hardware and software of computing and telecommunications and associated resources. Information technologies, therefore, form an important part of the overall information system.

Many believe that the central purpose of investing in IT is to achieve competitive advantage and better firm performance (Li and Ye, 1999). Brynjolfsson and Hitt (1995) also state that the broad strategic goals of IT investment are cost savings, improved management control, and customer orientation that emphasizes quality, customer service, flexibility, and speed, all of which have positive effects on performance. In their study, Quinn and Baily (1994) show that IT investments are often based on un-measurable and intangible benefits, such as avoiding catastrophic losses, creating greater flexibility and adaptability, improving responsiveness for new product lines, improving service quality, and enhancing quality of work life to name just a few. Activities aiming to establish management of information systems in organizations not only improve organizations' internal activities and processes, but also contribute to reaching organizations' targets related to financial performance and competition (Zehir and Keskin, 2003).

FIRM PERFORMANCE

In the literature, two types of indices have been used to measure performance. These are: (1) the index of subjective-relative performance and (2) the index of objective performance (Khandvalla, 1967). The subjective relative performance index asks respondents to evaluate their firms in terms of some items, such as financial strength, profitability, employee moral, and public image relative to their competitors. On the other hand, the objective performance index has three components: (1) firm's profitability, (2) the stability of its profitability, and (3) the growth rate of its sales or revenues (Khandvalla, 1967). Matsuno ,

Mentzer, and Özsomer (2002) argue that difficulties related to obtaining the objective data necessitate subjective data.

Related to the objective performance measure, Li and Ye (1999) state that for business firms, two groups of measures may serve as the basis for performance assessment. These are growth measures such as sales growth; profit measures such as return on assets (ROA); and return on sales (ROS). ROA indicates how effectively a firm can open up new markets or expand in existing markets. ROS indicates the efficiency of the organization's operation (Le and Ye, 1999, Tanrıverdi and Zehir 2006).In the present study, we use the subjective-relative index of Guimaraes and Amstrong (1998).

RESEARCH GOAL

Globalization leads to increasing competitiveness on both national and international scales. Further, recent developments in information technologies facilitating business management applications such as management information systems and executive information systems, necessitate revising organization structures. Thus, firms have to develop new strategies continuously. New strategies and especially, technological developments necessitate the change management applications. All these developments increase the importance of some concepts, such as competitive strategies, change management, and information system effectiveness. This study aims to define the relationship among these concepts through a literature review and examines the effects of competitive strategies, change management applications, and information systems on firm performance.

HYPOTHESES AND RESEARCH MODEL

Hypotheses

H_1: Competitive strategies that companies follow during the integration process influence change management effectiveness in a positive way.

H_2: Change management applications' effectiveness during the integration period influence information system effectiveness in a positive way

H_3: Information system effectiveness during the integration period has a positive impact on firm performance.

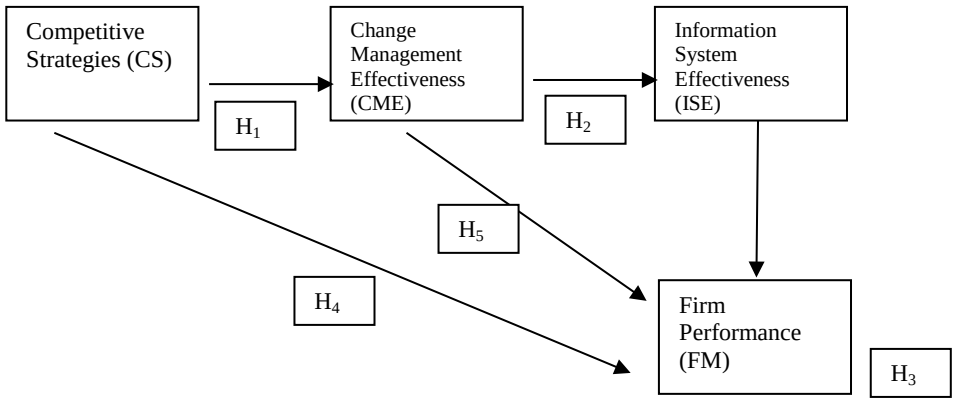
H_4: Competitive strategies that companies follow during the integration processes have a positive impact on firm performance.

H_5: Change management effectiveness during the integration period has a positive impact on firm performance.

The Research Model

This section covers the research model, variables relating to the model, and the content of variables.

Figure 1:General Research Model:



Competitive Strategies: The competitive strategies variable is the exogenous variable. To measure the impact of competitive strategies on change management effectiveness, eight items related to quality circles, cost systems, improved team effectiveness, effective cooperation between departments, continuous improvement, and firms' innovation capability are used.

Change Management Effectiveness: The change management effectiveness is one of the endogenous variables. To measure the level of firms' success in change management applications, respondents were asked 14 questions.

Information System Effectiveness: To measure the effectiveness of information system use, five items related to firms' support for operations and leadership, the effectiveness of technology use, and support of information systems for technological leadership are used.

Firm Performance: Respondents are asked to evaluate their market share, profitability and level of success in order to measure firm performance.

METHODOLOGY

This survey is conducted on 188 executives in different firms in Turkey in 2012-2013. Competitive strategies measure with eight items is obtained from Huang's (2001) "The Effects of Linkage Between Business and Human Resource Strategies"; change management applications effectiveness with 14 items; information systems effectiveness with five items; and firm performance with four items are adopted from Guimaraes and Amstrong (1998). Thirty-one items were scored on seven-point Likert scale. SPSS 15.0 statistic programme is used for Alpha reliability analysis and factor analysis. The results of correlation analysis and descriptive scores, such as means and standard deviation scores are also obtained through the SPSS 15.0. To test the described relationships, a path model is constructed as shown in Figure 1. The Path Model (Structural Equation Modeling) allowed us to form the model and to test the hypotheses. The use of path analysis allowed testing the structural model, while having the advantages of simultaneously understanding both direct and indirect paths and providing predictive power similar to the full model.

FINDINGS AND EVULATION

Structural Equation Modeling is used to test the hypotheses. Scales for H_1, H_2, H_3, H_4, and H_5 satisfy the requirements below:

GFI: Goodness-fit index > 0.90 , NFI: Normed-fit index > 0.90, X^2: Discrepancy < 3, P > 0.05, X^2/df: Discrepancy/Degrees of Freedom < 3

Pedhazur (1982) suggests that a scale with a coefficient α equal to or greater than 0.70 can be considered to have little or no measurement error. All scales used in this study satisfied this requirement, as seen in Table 1. Competitive strategies with an α of 0.88; change management effectiveness with α of 0.89; information system effectiveness with α of 0.87 and firm performance with α of 0.83 satisfies these requirements.

The study focuses on the overall relationships among competitive strategies, change management effectiveness, and information system effectiveness to firm performance in H_1, H_2, H_3, H_4, and H_5. Those five hypotheses are evaluated according to the model presented in Figure 1.

Table 1. Correlation, Descriptive, Coefficients α, and Eigen Values

	1	2	3	4	Mean	Standard Deviation	Alpha (α) Value	Eigen Values
1. **Competitive Strategies**	1.00				4.7	1.03	α=,88	7.37
2. **Change Management Effectiveness**	0.30**	1.00			5.1	1.10	α=,89	31.94
3. **Information System Effectiveness**	0.17*	0.53**	1.00		5.4	1.07	α=.87	14.67
4. **Firm Performance**	0.25**	0.40**	0.43**	1.00	5.0	0.99	α=.83	10.49

*Correlation is significant at the 0.01 level (2-tailed)

** Correlation is significant at the 0.05 level (2-tailed)

H_1, competitive strategies that companies followed during the integration process influence change management effectiveness in a positive way, is supported statistically (Regression Weight = 0.32). The literature also supports this hypothesis. Integration periods coerce firms to change. Coercions necessitate deep-rooted change on organizations' structure and management. Hussey (1998) specifies competition as a factor pushing change management. Competitive strategies that companies follow, therefore, during the integration period will affect the change management processes. Prastacos et al. (2002), also state that to manage change successfully, organizations must be innovative and flexible and endowed with organizational capabilities. These qualities bring competitive advantage to organizations.

H_2, change management applications effectiveness during the integration period, influence information system effectiveness in a positive way, is also supported statistically (Regression Weight = 0.51). Information and communication systems must work better for change management applications to be successful. Further, integration processes require prompt knowledge delivery and quick responses. Thus, information system effectiveness is vital for the success of the change process. Open communication is also necessary for the success of change management applications. Communication should be not only vertical, but also horizontal and diagonal. Privileged knowledge among top management should also be spread among departments in organizations (Hurst, 1995). H_3, information system effectiveness during the integration period has a positive impact on firm performance, is significant statistically (Regression Weight = 0.27). The literature also supports this study's third hypothesis. Firms' executives increase information system effectiveness by using technology, especially during integration periods. Firms increase their performance by investing in information technologies (Davis et al., 2002). Strategic information technology consists of information technologies that enable firms to better identify and respond to customer needs, market opportunities, and competitors' initiatives. Strategic information technology provides decision-makers, suppliers, and customers with administrative, coordinative, and decision support. Driving increases in investment in strategic information technology can help improve organizational performance (Hopper, 1994; McFarlan, 1984). Although Davis et al., (2002) state in their research that there is an indirect relationship between information technologies and firm performance, the survey results of the present study indicate a direct relationship between information system effectiveness and firm performance. This difference may be caused by the way that survey handled information technologies as a part of information systems and examined information system effectiveness as a whole.

H_4, competitive strategies that companies followed during the integration processes have a positive impact on firm performance, is supported statistically (Regression Weight = 0.13). Equifinality principle states that a number of different, equally effective strategies can be used to achieve better performance (Van de Ven and Drazin, 1985; Doty Doty, Glick, and Huber, 1993). According to Ward and Duray (2000) strategy implementation is the key link between competitive strategy and firm performance. Keats and Hitt (1998) use a covariance structure model to describe the relationship among environmental dimensions, competitive strategy, and performance. Kim and Lim (1988) also support this relationship using a model linking environment, competitive strategy, and performance.

H_5, change management effectiveness during the integration period has a positive impact on firm performance, is significant statistically (Regression Weight = 0.18).

Figure 2 - Overall Research Model: The Relation between Competitive Strategies, Change Management Effectiveness, Information System Effectiveness, and Firm Performance

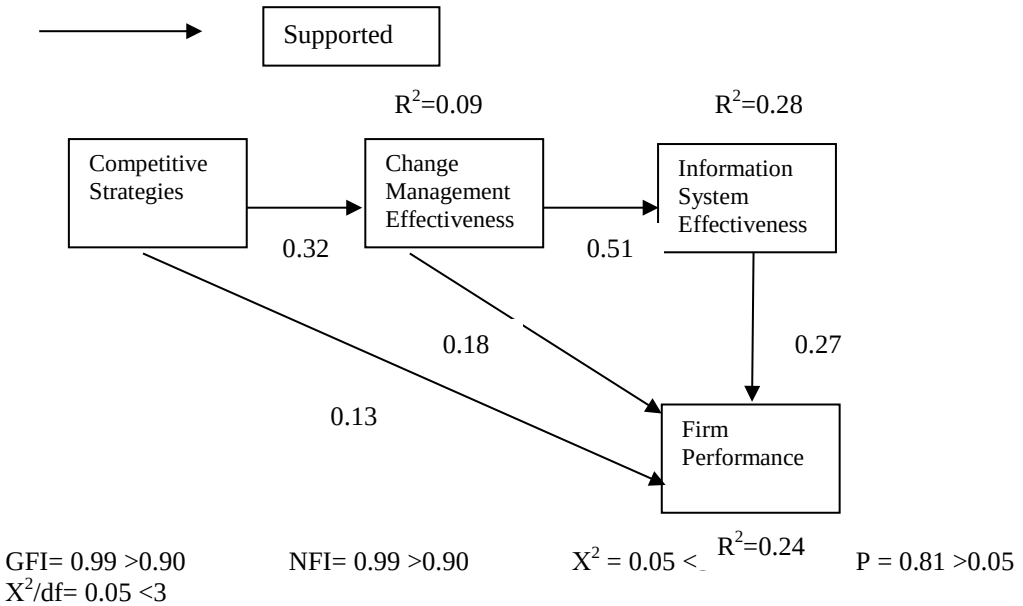


Table 2. Standardized Path Estimates for the Initial Path Model

Variable Relationships	b	SE	CR	P
CS to CME	0.32	0.07	4.33	0.000
CME to ISE	0.51	0.06	8.59	0.000
ISE to FP	0.27	0.07	3.91	0.000
CS to FP	0.13	0.06	2.04	0.000
CME to FP	0.18	0.07	2.64	0.008

Table 2 shows the results from the path analysis. Based on the reported standardized solution in Table 2, competitive strategies have a significant positive relationship with change management effectiveness and firm performance; change management effectiveness has a significant positive relationship with information system effectiveness; and firm performance and information system effectiveness has a significant positive relationship with firm performance. The model in Figure 1 demonstrates a good fit with the data (GFI = 0.99; NFI= 0.99; X^2 = 0.05; P = 0.81; X^2/df = 0.05).

DISCUSSION AND SUGGESTIONS

After the 2002 election, Turkey's new government has accelerated integration processes and has enacted new integration laws for organizations operating in Turkey. The driving forces of integration and technological developments have increased the intensity of competition and led to a more turbulent and more dynamic environment in Turkey. Therefore, firms' executives have to adjust their strategies in order to integrate into the EU and survive in that competitive and dynamic environment. This survey is conducted on 188 executives from different firms in Turkey in 2012-2013. We managed to examine the effects of "change management applications" and "competitive strategies" that firms follow, as well as "information systems" used in firms during the EU integration process. In this paper, we have examined the relationships between competitive strategies, change management applications effectiveness, information systems effectiveness, and firm performance.

The findings support all hypotheses. Structural equation modeling is used to form the model according the survey results and to test the hypotheses.

According to survey findings:

- Competitive strategies influence change management effectiveness in a positive way.
- Change management applications effectiveness influence information system effectiveness in a positive way.
- Information system effectiveness influences firm performance in a positive way.
- Competitive strategies influence firm performance in a positive way.
- Change management effectiveness influences firm performance in a positive way.

Ward and Duray (2000) find that the relationship between competitive strategy and firm performance is mediated by manufacturing strategy. In other words, their analysis shows that a direct relationship between competitive strategy and firm performance is not significant. Vickery, Droge, and Markland, (1993), who found covariance between competitive strategy and production competence with firm performance, also adress the links among competitive strategies and firm performance. Through the path model, this study revealed that competitive strategies with change management effectiveness and information effectiveness affect firm performance positively and the relationship is significant statistically (Regression Weight = 0.27; $R^2 = 0.24$). Besides that link, survey results also revealed a direct relationship between competitive strategies and firm performance.

The path model analysis also shows the mediating effect of change management effectiveness and information system effectiveness on the relationship between competitive strategies and firm performance, which has not been examined before in the literature. Ward and Duray (2000) examine the relationship among the environment, competitive strategy, manufacturing, and firm performance; Vickery et al. (1993) find covariance competitive strategy and production competence with firm performance; Keats and Hitt (1988) uses a covariance structure model to describe the relationship among environmental dimensions, competitive strategy, and performance. The present study, however, is the first to examine the relationships among “competitive strategies,” “change management effectiveness,” “information system effectiveness” and “firm performance” in the literature.

In light of these findings, consider the following recommendations for future research:

- the research sample size limits the survey findings; increase the sample size in future research.
- while examining competitive strategies and firm performance relationships we saw that besides direct relationships among competitive strategies and firm performance, competitive strategies work with change management effectiveness and information system effectiveness to increase firm performance. Other factors may work with competitive strategies to increase firm performance. The scope of the present survey may be expanded by adding other variables and those factors may be investigated in future research studies.

REFERENCES

Ashton, W.B. and Stacey G.S. Technical Intelligence in Business: Understanding Technology Threats and Opportunities, *International Journal of Technology Management* 1995; *10*, 79-114.

Barbara, Vincent P. "Meeting of the Minds," President and Fellows of Harvard College1995.

Boody, David and Macbeth, Douglas. Prescriptions for Managing Change: A Survey of Their Effects in Projects to Implement Collaborative Working Between Organizations, *International Journal of Project Management* 2000; *18*, 297-306.

Brynjolfsson, E. and Hitt, L. The Productive Keep Producing, *Information Week*, 1995;38-43.

Cornell, J. *Aspects of the Management of Change*, MCB University Press: UK, 1996.

Cooper, Arnold C. and Schendel, Dan E. Strategic Responses to Technological Threats, *Business Horizons*, 1976; *19*, 61-69.

Dalay, İ., Coşkun, R. and Altunışık, R.. "Modern Yönetim Yaklaşımları (Modern Management Approaches)," Beta Yayınları; Istanbul, 2002.

Davis, Peter S., Dibrell, Clay C., and Janz, Brain D. The Impact of Time on the Strategy-Performance Relationship Implications for Managers, *Industrial Marketing Management* 2002; *31*, 339-347.

De, Rahul and Mathew, Biju. Issues in the Management of Web Technologies: A Conceptual Framework, *International Journal of Information Management*, 1999; *19*, 427-447.

Doty, D.H., Glick, W.H. and Huber, G.P. Multidimensional Fit, Equifinality, and Organizational Effectiveness: A Test of Two Configurationally Theories. *Academy of Management Journal*, 1993; *36(6)*, 1196-1250.

Drucker, Peter F. The Coming of the New Organization, *Harvard Business Review*, 1988; January-February, 53.

Eren, Erol. Stratejik Yönetim ve İşletme Politikası (Strategic Management and Business Politcs), 6. Baskı, Beta Yayınları, Istanbul, 2002.

Frishammar, Johan. Characteristics in Information Processing Approaches, *International Journal of Information Management*, 2002; *22*, 143-156.

Gilad, B. *Business Blindspots* (2nd Ed.). Calne: Infotronics Ltd. 1996.

Ginzberg, M.J. An Organizational Contingencies View of Accounting and Information System Implementation, *Accounting, Organizations and Society*, 1980; 5(4), 369-382.

Guimaraes, T. and Amstrong, C. Empirically Testing the Impact of Change Management Effectiveness on Company Performance, *European Journal of Innovation Management*, 1998; 74-84.

Hamel, G. and Prahalad, C.K. Competing in the New Economy, *Strategic Management Journal*, 1996; *17*, 237-242.

Hamrefors, S. Environmental Scanning Behavior in Four Swedish Organizations: AStudy of Environment Based Competence Development. Stockholm:IMIT-Report No.96,83, 1996.

Hitt, M.A., Keats, B. and DeMarie, S.M. Navigating in the New Competitive Landscape: Building Strategic Flexibility and Competitive Advantage in the 21st Century, *Academy of Management Executive* 1998; *12(4)*, 22-42.

Ho, Samuel K. Competitive Strategies Through Sun Tze's Art of Warfare, *Strategic Change*, 1997; *6*, 33-47.

Hopper, M. Rattling SABRE: New Ways to Compete on Information, *Harvard Business Review*, 1994; May-June, *28*, 2-9.

Huang, T.C. The Effects of Linkage Between Business and Human Resources Strategies, *Personal Review*, 2001; *30(2)*, 132-151.

Hurst, David K. *Crisis and Renewal*, Harvard Business School Press, 1995.

Hussey, David, *How to be Better at…Managing Change* (Translated by Ali Çimen). Timaş Yayınları, Istanbul, 1998.

Illinitich, A.Y., D'Aventi, R.A. and Lewin, A.Y. New Organizational Forms and Strategies for Managing in Hypercompetitive Environments, *Organizational Science*, 1996; *7(3)*, 211-221.

Ives, B. and Learmonth, G.P. The Information System as a Competitive Weapon, *Communications of the ACM*, 1984; *27(12)*, 1193-1201.

Keats, B.W. and Hitt, M.A. A Causal Model of Linking ages Among Environmental Dimensions, Macro-Organizational Characteristics and Performance, *Academy of Management Journal*, 1988; *31(3)*, 570-598.

Kim, L. and Lim, Y. Environment, Generic Strategies, and Performance in a Rapidly Developing Location: A Taxomonic Approach, *Academy of Management Journal*, 1988; *31(4)*, 802-827.

Koçel, Tamer. İşletme Yöneticiliği (Business Management), Beta Yayınları, Istanbul, 2001.

Kotorov, Rado P. The Strategy Wheel: A Method for Analysis and Benchmarking for Competitive Strategy, *Competitive Intelligence Review*, 2001; *12(3)*, 21-30.

Lai,Vincent, S. Issues of International Informational Systems Management Perspective of Affiliates," *Information and Management*, 2001; *38*, 253-264

Legris, P., Ingham, J., and Collerette, P. Why Do People Use Information Technology? A Critical Review of the Technology Acceptance Model, *Information and Management*, 2003; *40*, 191-204.

Li, Mingfang and Ye, Richard.. Information; Technology and Firm Performance: Linking with Environmental Strategic and Managerial Contexts, *Information and Management*, 1999 ; (35): 43-51.

Linsu, Kim. Crisis Construction and Organizational Learning: Capability Building in Catching-up at Hyundai Motor, *Organization Science*, 1998; *9(4)*, 506-521.

Lozada, H. and Calantone, R. Scanning Behaviour and Environmental Variation in the Formulation of Strategic Responses to Change, *Journal of Business and Industrial Marketing*, 1997; *11*, 17-42.

Maier, J. and Kelly, R. Environmental Scanning for Information Technology: An Empirical Investigation, *Journal of Management Information Systems*, 1997; *14*, 177-201.

Martinsons, M.G. Human Resource Management Applications of Knowledge-based Systems, *International Journal of Information Management* 1997; *(17)1*, 35-53

Matsuno, Ken, Mentzer, John T., and Ayşegül Özsomer . The Effect of Entrepreneurial Proclivity and Market Orientation on Business Performance, *Journal of Marketing*, 2002; *66(3)*, 18-32.

McFarlan, F.W. Information Technology Changes the Way You Compete, *Harvard Business Review*, 1984; May-June, 62, 98-103.

Misra, S.K., Clair, J.A., and Bettenhausen, K.L. Clarifying the Attributes of Organizational Crises, *Technological Forecasting and Social Change*, 2001; *67*, 77-91.

Nasi, Juha . Information Systems and Strategy Design: The Knowledge Creation Function in Three Modes of Strategy-Making, *Decision Support Systems*, 1999; *26*, 137-149.

O'Brien, B. *Information Management Decisions-Briefings and Critical Thinking*, London: Pitman Publishing, 1995.

Pearson, Christine M. and Clair Judith A. Reframing Crisis Management, *The Academy of Management Review*, 1998; *23*, 59-76.

Pedhazur E.J.. *Multiple Regression in Behavioral Research: Explanation and Prediction*. New York: Holt, Rinehart, and Winston, 1982.

Prastacos, G., Söderquist, K. , Spanos, Y. and Wassenhove, L.V. An Integrated Framework for Managing Change in the New Competitive Landscape, *European Management Journal*, 2002; *20(1)*, 55-71.

Quinn, J. and Baily, M. Information Technology: Increasing Productivity in Services, *Academy of Management Executive*, 1994; *8(3)*, 28-48.

Quinn, R. and Cameron K. *Paradox and Transformation: Toward a Theory of Change in Organization and Management*, Ballinger, Cambridge, MA., 1989.

Strebel, P. Why Do Employees Resist Change? *Harvard Business Review*, 1996; May June.

Tanrıverdi,Haluk, Zehir, Cemal, (2006), Impact of learning Organizations' Applications and Market Dynamism on Organizations' Innovativeness and Market Performance, *The Business Review*, Cambridge, Vol. 5(1), Summer,pp.238-246

Van de Ven, A.H. and Drazin, R. The Concept of Fit in Contingency Theory. In: L. Cummins and B.M. Staw (Eds). *Research in Organizational Behavior*, 1985; 7, JAI Press, Greenwich, CT, pp.333-365.

Vickery, S.K, Droge, C. and Markland, R.R. Production Competence and Business Strategy: Do They Affect Business Performance, *Decision Sciences*, 1993; *24(4)*, 435-456.

Ward, Peter T. and Duray, Rebecca. Manufacturing Strategy in Context: Environment, Competitive Strategy and Manufacturing Strategy, 2000; *Journal of Operations Management 18*, 123-138.

Wells, J.D., Fuerst, W.L., and Choobineh, J. Managing Information Technology (IT) for One-to-One Customer Interaction, *Information and Management*, 1999; *35*, 53-62.

Zehir, Cemal and Keskin, Halit. A Field Research on the Effects of MIS on Organizational Restructuring, *The Journal of American Academy of Business*,2003; *3(1-2)*,270-279.