

SIGNIFICANCE OF TEAM-BASED ORGANIZATIONS IN  
BUSINESS PROCESS ORIENTATION AND EFFECTIVENESS:  
AN APPLICATION TO SERVICE FIRMS IN TURKEY

AYŞE MERAL DÜLGER

BOĞAZIÇI UNIVERSITY  
2011

SIGNIFICANCE OF TEAM-BASED ORGANIZATIONS IN  
BUSINESS PROCESS ORIENTATION AND EFFECTIVENESS:  
AN APPLICATION TO SERVICE FIRMS IN TURKEY

Dissertation submitted to the  
Institute for Graduate Studies in Social Sciences  
In partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Management

by

AYŞE MERAL DÜLGER

BOĞAZIÇI UNIVERSITY  
2011

## Dissertation Abstract

Ayşe Meral Dülger, “Significance of Team-Based Organizations in Business Process Orientation and Effectiveness: An Application to Service Firms in Turkey”

Through an organizational design point of view, this study looks into the extent of understanding about business processes and how these views affect team processes and team effectiveness/performance. In particular, this endeavor examines the relationship between Business Process Orientation (BPO), Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance in service firms operating in Turkey.

Hypothesized relationships were investigated with a quantitative study which includes a survey. Data are collected from 368 middle-level team members and team managers who operate in the service industry in İstanbul, İzmir, Ankara, Bursa, Kocaeli, Antalya, Turkey and hypothesized relationships are analyzed with structural equation modeling procedure in AMOS 19.

The foremost finding of the study is that Business Process Orientation has a significant relationship with Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance. The results indicate that this relationship is significant only when Business Process Orientation is mediated by Team Action Processes and Interpersonal Processes in predicting Team Effectiveness/Performance. Considering that the relationship between Business Process Orientation and team processes and team effectiveness/performance has not been established before, this finding takes the first step in verifying the existence of this relationship and therefore paves the way for future endeavors.

## Tez Özeti

Ayşe Meral Dülger, “İş Süreçlerine Yönelim ve Etkinlik Açısından Takım Bazlı Örgütlerin Önemi: Türkiye’de Faaliyet Gösteren Hizmet Firmaları Üzerinde Bir Uygulama”

Bu çalışma, örgütsel tasarım penceresinden bakarak iş süreçleri ile ilgili algının takım süreçleri ve takım etkinliği/başarısı üzerindeki etkisi üzerinde durmaktadır. Başka bir deyişle, bu araştırma Türkiye’de hizmet sektöründe faaliyet gösteren firmalarda İş Süreçlerine Yönelim (İSY), Takım Çalışma Süreçleri, Kişilerarası Süreçler ve Takım Etkinliği/Başarısı arasındaki ilişkiyi incelemektedir.

Öne sürülen varsayımlar verilerin anket üzerinden toplandığı nicel bir araştırma aracılığı ile incelenmiştir. Anketler, İstanbul, İzmir, Ankara, Bursa, Kocaeli ve Antalya’da faaliyet gösteren firmalarda orta kademede bir takım içinde çalışan ve takım yöneticisi olan 368 çalışan üzerinde uygulanmıştır. Öne sürülen ilişkilerin ne kadar doğru olduğunun analizi ise AMOS 19 programında bulunan yapısal eşitlik modellemesi yoluyla yapılmıştır.

Çalışmanın en önemli bulgusu, İş Süreçlerine Yönelim’in Takım Çalışma Süreçleri, Kişilerarası Süreçler ve Takım Etkinliği/Başarısı ile anlamlı bir ilişkisi olduğunun gözlenmesidir. Sonuçlar bu ilişkinin İş Süreçlerine Yönelim ve Takım Etkinliği/Başarısı arasındaki ilişkinin sadece Takım Çalışma Süreçleri ve Kişilerarası Süreçler tarafından düzenlenirse anlamlı olduğunu ortaya koymaktadır. İş Süreçlerine Yönelim’in daha önce literatürde takım süreçleri ve takım etkinliği/başarısı ile ilişkisinin kurulmamış olduğu göz önüne alındığında, çalışma bulgularının bu ilişkinin varlığını doğruladığı ve gelecekte bu konu üzerinde yapılacak incelemelerin yolunu açtığı görülmektedir.

## CURRICULUM VITAE

NAME OF AUTHOR: Ayşe Meral Dülger

PLACE OF BIRTH: Ankara; Turkey

DATE OF BIRTH: 24 April 1980

### GRADUATE AND UNDERGRADUATE EDUCATION:

- Doctor of Philosophy in Management, 2011, Boğaziçi University
- Master of Business Administration, 2006, Boğaziçi University
- Bachelor of Arts in International Relations, 2002, Bilkent University

### AREAS OF SPECIAL INTEREST:

- Strategy
- Business Process Design and Redesign
- Teams
- Innovation
- Institutionalization

### AWARDS AND HONORS:

- National Scholarship Program for PhD Students, TUBITAK, Istanbul, 2006 – 2011.
- National Scholarship Program for Graduate Students, TUBITAK, Istanbul, 2005 – 2006.
- High Honor Student, Boğaziçi University, 2004 – 2006
- Scholarship of Merit, Bilkent University, 1999 – 2000; 2001 - 2002
- High Honor Student, Bilkent University, 1998 – 2002

### PUBLICATIONS:

- Dülger, M., Alpay, G., Bodur, M. and Yılmaz, C. (*forthcoming*). How do learning focus and strategic choice influence innovativeness? *The Business Review*, Cambridge, Vol. 16, No. 2.
- Dülger, M., Alpay, G., Bodur, M. and Yılmaz, C. (2011). Effects of learning orientation on SME innovativeness. *Proceedings of 2<sup>nd</sup> International Entrepreneurship Conference*, Turkey.
- Dülger, M. (2009). “Human” side of Change: A conceptual model. *Proceedings of Oxford Business and Economics Conference (OBEC)*, United Kingdom.
- Dülger M. and Alpay, G. (2008). A search for the T-type Organization. *Proceedings of Muhan Soysal İşletmecilik Konferansı*, Northern Cyprus.
- Dülger, M. (2006). pp. 15- 18. In Ö. Ertuna (Ed.), *Essays on Crafting Successful Business Strategies*, Istanbul, Turkey:

## ACKNOWLEDGEMENTS

This was the best but the hardest thing I had to do in my whole life... However, now, I realize that this was a journey that totally transformed my way of thinking, attitudes and vision professionally. Most importantly, it is this instant that I appreciate the whole experience with its ups and downs as they all turned out to be positive inputs to what I hope I can accomplish academically. There are numerous individuals whom I would like to articulate my gratefulness to because they are very dear to my heart and they are the ones who supported me to complete this undertaking successfully.

Foremost, I would like to express my heartfelt thankfulness to my advisor, Professor Güven Alpay especially for his way of graceful guidance when I was perplexed by the vastness of the things I had to accomplish in an area that was first in its field. His farsightedness has earned me an academic specialty whose limits, even today, is beyond my imagination and hopefully will benefit organizations in a positive manner. I would also like to convey my appreciation to Professor Hayat Kabasakal who helped me to put things into perspective and eliminate any concerns I might have had with her attentiveness and accessibility. Further, I would like to give my thanks to the rest of the members of my dissertation committee, Professor Muzaffer Bodur, Professor Cengiz Yılmaz and Professor Mustafa Dilber for their valuable comments and recommendations. I am especially indebted to Professor Cengiz Yılmaz for his patience and thorough responses to each and every one of my questions during data analysis which I greatly benefited from his exceptional insightful abilities, experience and knowledge during my Master's and PhD studies.

Institutionally, I firstly would like to thank TUBITAK for its financial support in the past six years. I also would like to thank the Scientific Research Projects Committee of Boğaziçi University as they made the data collection part of this dissertation possible.

My special thanks are for Kaan Varnalı, PhD whose input and recommendations have been very valuable especially at the preliminary data analysis phase of this study. I also would like to show gratitude to his wife, Renin Varnalı, as well for her availability and generosity.

I would like to express my debt of gratitude and appreciation to my aunt and the most outstanding academic I know, Professor Zeynep İlsen Önsan without whom this endeavor could not have been possible. Apart from kindly guiding me into pursuing an academic career, she was also the one who motivated me and truly understood the kind of work and endurance it takes to fulfill the requirements of a PhD study.

I also would like to acknowledge all of my friends who generously spent time on participating in my study and encouraging their own friends to do so.

My final and most special thanks go to my parents who provided me with their ever-lasting support throughout my academic life. Apart from their excellent intellectual capacities and academic orientation, their wisdom, vision and experiences were a great help in this quest. To save the best for last, I am profoundly grateful to my dear spouse, Kerem Taşkın, for his perpetual patience, encouragement, thoughtfulness and unconditional love, which enabled me to complete this dissertation with serenity.

To my dear family...

## CONTENTS

CHAPTER ONE: INTRODUCTION .....	1
CHAPTER TWO: GROUNDS FOR BUSINESS PROCESS ORIENTATION AND TEAMS .....	6
Resource – Based Theory .....	10
Network Organization Design .....	13
CHAPTER THREE: BUSINESS PROCESSES AND BUSINESS PROCESS ORIENTATION .....	23
Processes in Organizational Design .....	23
Business Process Orientation .....	29
CHAPTER FOUR: TEAMS AND TEAM PROCESSES .....	31
Teams in Organizations .....	33
Purpose and Advantages of Teams .....	35
Types of Teams .....	41
Traditional versus Team-Based Organizations .....	44
Team Processes .....	47
CHAPTER FIVE: CONCEPTUAL MODEL AND HYPOTHESES OF THE STUDY .....	54
Constructs .....	54
Significance of the Study .....	58
Theoretical Model .....	62
Hypothesized Relationships .....	71
CHAPTER SIX: RESEARCH DESIGN AND METHODOLOGY .....	76
Research Objectives .....	76
Research Design .....	78
CHAPTER SEVEN: RESULTS .....	93
Results of the Pilot Study .....	93
Reliability Checks with Actual Sample .....	96
Factor Analyzes .....	97

Measure Validation with Confirmatory Factor Analysis .....	104
Hypotheses Testing with Structural Equation Modeling.....	109
 CHAPTER EIGHT: DISCUSSION, IMPLICATIONS, AND CONCLUSION .....	 123
Theoretical Implications .....	127
Practical Implications .....	129
Limitations.....	131
Conclusion.....	133
 APPENDICES .....	 137
A. Questionnaire in English .....	138
B. Questionnaire in Turkish .....	144
C. Reliability Statistics for the Constructs in the Study .....	150
D. Assessment of Normality.....	154
E. Null Plot of Residuals .....	155
F. Factor Loadings of Business Process Orientation.....	156
G. Factor Loadings of Team Action Processes .....	158
H. Factor Loadings of Interpersonal Processes .....	160
I. Factor Loadings of Team Effectiveness/Performance .....	161
J. Measurement Model Factor Loadings .....	162
 REFERENCES .....	 163

## TABLES

1. Team versus Individual .....	41
2. Traditional versus Team-Based Organizations .....	45
3. Sample Characteristics .....	82
4. Business Process Orientation Instrument .....	86
5. Team Action Processes Scale.....	89
6. Interpersonal Processes Scale.....	90
7. Intra-Class Correlation Values of the Constructs .....	97
8. Test of Homogeneity of Variances .....	99
9. Collinearity Statistics.....	100
10. Cronbach's Alpha Values of the Constructs .....	102
11. Summary Information on Factor Analyses .....	103
12. Summary Information on Deleted Items .....	106
13. Descriptive Statistics and Correlations .....	108
14. Parameter Estimates (Model 1).....	111
15. Parameter Estimates (Model 2).....	114
16. Parameter Estimates (Model 3).....	117
17. Parameter Estimates (Model 4).....	120
18. Summary of the Results of Hypotheses Testing .....	122

## FIGURES

1. Theoretical Model.....	70
2. Hypothesized model with standardized path coefficients (Model 1).....	112
3. Hypothesized model with standardized path coefficients (Model 2).....	115
4. Hypothesized model with standardized path coefficients (Model 3).....	118
5. Hypothesized model with standardized path coefficients (Model 4).....	121

## ABBREVIATIONS

Terminology	Abbreviation
Average Variance Extracted	AVE
Business Process Orientation	BPO
Confirmatory Factor Analysis	CFA
Comparative Fit Index	CFI
Goodness of Fit Index	GFI
Input-Mediator-Output-Input	IMOI
Input-Process-Output	IPO
Resource-Based Theoru	RBT
Root Mean-Square Residual	RMR
Root Mean-Square Error of Approximation	RMSEA
Structural Equation Modeling	SEM

## CHAPTER ONE

### INTRODUCTION

In recent years, it has become evident that change has become the only constant and an integral part of modern business life. As globalization requires an ongoing process of strategic decisions to integrate the international technological, economic, socio-cultural and political forces, the need to update and/or adapt primarily our firms to these changing dynamics arises. Many of the features that are needed for the healthy operation of the businesses such as customer value propositions, demand cycles, cost and profit structures, efficiency of marketing functions, availability of supply and distribution channels, technology, availability of information about the world and domestic economic elements, financial markets, strategic choices, business models, consumer loyalty patterns, purchasing habits, lead times, operations management functions, resource availability, partnership dynamics, laws and regulations or business norms (adapted from Johnson et al., 2008) have the potential to change overnight. Faced with this challenge, organizations are forced to be proactive, innovative, dynamic, adaptive and flexible in order to address these issues (Nadler et al., 1992; Lawler, 1994; Mohrman et al., 1995, 1998; Galbraith, 1973, 1994, 1995; Goold and Campbell, 2002;

Smith and Fingar, 2003; Spanyi, 2006). However, these requirements are easier said than done. This is because most organizations tend to be set in their ways (Hammer, 1996) in terms of their organizational structures, strategy crafting and business conducting habits. Thus, it becomes an apparent fact that organizations need to start employing new tools and novel ways of thinking if they are to endure.

Globalization made it more apparent that the systems that people inhabit in are nothing but complex. These systems comprise the global economy and national economies, our local cultures, our national governments and institutions, the companies we work for and the social circles we interact with. Moreover, as everything has been leaning toward further specialization since the Industrial Revolution, we have become more co-dependent on each other and this naturally increases complexity. However, the “reliable” bureaucratic structures are no longer capable to handle this complexity and to back up the information stemming from specialization, let alone harboring it. Since they have sequentially dependent tasks and managerial levels, lack the indispensable flexibility that is needed in order to survive in the potentially “chaotic” nature of the current global milieu. The chain-of-command approach coupled with the fixation of trying to assemble every bit of information at the top levels is limited in its aptitude to respond to the emerging complexity at the lower levels as well as the ever-changing global trends doing business. Hence, they can be seen as organizations that have the tendency to avoid change rather than embracing it.

This complexity calls for *business process orientation* (BPO) and the utilization of *teams* for organizations if they are to survive and continue to thrive in this uncertain environment. Business processes are essentially the practices that end up adding value for a specific business and they exclude any activity that is non-value adding. In other

words, processes are a group of tasks that *together* create a value to a customer (Hammer, 1996). Examples include order acquisition, order fulfillment, product development, planning and so forth. Processes highlight functional interdependencies between the macro and micro systems of the organizations and it is believed that this would provide flexibility and room for innovation. A company that has increased value for its customers and decreased costs across its value chain can be said to have well-designed business processes. Therefore, process oriented organizations operate in such a way that they break down functional mind-set and barriers in order to serve their customers in a better way.

Teams, on the other hand, have gained popularity as organizational components (Mohrman et al., 1995) that provide organizations with a tool that fosters cooperation and synergy throughout their business systems. The use of teams addresses organizations' coordination needs in a timely and cost-effective manner (Mohrman et al., 1995). Teams are basically a group of people that work toward a common goal or purpose; however, being a group does not suffice by itself to be a team. In order to become a team, the members are expected to have complementary skills that compensate for the other members' limitations whilst getting the most out of their strengths.

In brief, the business endeavors have become more and more complex with the advances of technology and globalizing markets. Up to this point in the research, it was seen that there is a gap in the literature concerning the investigation of whether there is a relationship between BPO and the utilization of teams and whether BPO affects team performance and effectiveness. This is an academic endeavor where these relationships shall be investigated through a lens of organizational structure while teams will be

treated as a coordinating mechanism that aids the organizations to bind different parts of their organizational architectures together.

For the empirical application of the theoretical model that is put forward in this study, the service firms in Turkey are expected to illustrate the indicated relationships the best. Primarily, service firms are chosen because they are more prone to change in terms of customer demand and they have a better chance to be informed about changing trends and consumer habits from the first hand – that is, from the customers themselves when compared to production firms. Also, service firms are more flexible compared to production firms as it takes less time to update, refine and/or design a service package than it may take to refine and/or design an entire production line. Hence, it is expected that the empirical application of the theoretic model in the service sector would be more meaningful with service firms.

This dissertation is organized as follows: The subsequent section, Chapter 2 provides a brief literature review of complexity theory and resource-based theory as well as network organization design that are deemed to be the building blocks of BPO and employment of teams. In Chapter 3, the literature review continues about business processes followed by Chapter 4 where the current literature on teams concerning how they should be utilized in organizations in terms of structure design is provided. In Chapter 5, the theoretical model is put forward regarding how it will shed light on the relationship between business process orientation, employing teams in organizations and team effectiveness/performance along with relevant hypotheses. Chapter 6 includes the research design and methodology of the study while the results of the pilot test, reliability checks with the actual sample, factor analyzes, measure validation with confirmatory factor analyzes and hypothesis testing with structural equation modeling

are presented in Chapter 7. The theoretical and practical implications of the findings of the study is being discussed and interpreted in Chapter 8 along with limitations of the study, and suggestions for future research, as well as concluding remarks.

## CHAPTER TWO

### FOUNDATIONS FOR BUSINESS PROCESS ORIENTATION AND TEAMS

This section gives a brief account of the three theories - Complexity Theory, Resource – Based Theory and Network Organization Design – that are deemed to be the building blocks of this study along with what business process orientation (BPO) and teams involve as organizational design mechanisms.

In accordance with the literature review conducted hitherto, it is believed that Complexity Theory, Resource – Based Theory and Network Organization Design should reside at the root of the theoretical model to be proposed. These theories are in tune with the realities of the modern global business milieu because they all regard every component of a particular system – whether they are individuals, teams, departments, organizations, societies, countries or the global market place – as organic and they do not need to be connected to one another in sequential (i.e. hierarchical) terms. They all leave room for dynamism, flexibility, responsiveness and adaptiveness as they depict how complex the relations among the elements of a specific system can be. This is actually how the modern market place operates – that is dynamically, not statically as

the hierarchic organizational design viewpoints assumed. In the following pages, the detailed explanation of each of these theories are provided.

### Complexity Theory

The business environment is changing at a pace that has not been encountered before (Achrol, 1991; Hamel and Prahalad, 1994; Glass, 1996; Loewen, 1997; Conner, 1998), and change is occurring within the framework of increased complexity and turbulence (Dess et al., cited in Robbins, 1990; Huber, cited in Achrol, 1991). Today, organizations must find new approaches that enable them to handle greatly increased complexity, change and uncertainty and at the same time use fewer resources (Mohrman and Cummings, 1989: 8). Thus, postmodern organizations face a design paradox where they simultaneously maintain a bureaucratic nature and complex functioning (McGrath, 2001). Accordingly, such organizations must have efficiency, yet learn and adapt; have control, yet be responsive; and have centralized vision, yet be autonomously decentralized (Schreiber and Carley, 2006). This connotation was the spark behind this academic study that seeks to investigate whether there is a relationship between BPO and the utilization of teams and whether BPO affects team effectiveness/performance.

Complexity is described as the level of multiplicity in factors such as customers, suppliers, socio-politics and technology (Lane and Maxfield, 1996; Chae and Hill, 1997; Chakravarthy, 1997). Also, Philip (1999) informs that regarding the contingencies, complexity is seen as the number of different items or factors that must be handled simultaneously by the organization. As another related concept, task complexity refers to the number of different specialized inputs needed to complete a

product or service. Such tasks require applying multiple knowledge bases or skill sets learned through education in specific disciplines or through extensive training (Scott and Einstein, 2001). Task complexity creates behavioral interdependence (Pfeffer & Salancik, 1978) and amplifies the necessity for coordinating activities.

When complexity is heightened, the capacity to comprehend and make use of information to plan and foresee as well as to make sense of the environment becomes more complicated (Black and Farias, 1997). As increasing complexity leads to more change (Conner, 1998), adaptation to the changing environment becomes more problematic (Lane and Maxfield, 1996; Merry, 1995). This means that organizations need to somehow find a way to increase their capacity for information processing (Galbraith, 1973, 1994, 1995). Therefore, since we are operating in turbulent, complex and unpredictable environments, complexity theory is a useful tool to understand how organizations adapt to their environments.

The underlying idea is that “all things tend to self organize into systems” (Kelly, 1995: 5). This phenomenon is termed as *self-organization* (Goldstein, 1994; Kelly, 1995; Mason, 2007). Examples to systems can be the global and national economy, the local culture, the national governments and institutions, the companies we work for and the social circles we interact within and so forth. These systems develop patterns that are created when a number of simple rules are applied over many iterations and the small differences at the start of the process can eventually result in large differences in the system’s performance (Mason, 2007). However, it must be considered that stimulating one component of the system can have unexpected effects in other, even in unanticipated, parts of the system.

Mason (2007) underlines that several complexity concepts are relevant to business. Firstly, in complexity, the fundamental concept is self-organization. The process of a pattern of order emerging from a set of simple rules in an interconnected network is not directed by an external party or “manager”, but spontaneously self-organized from the bottom up through the inter-relationships of the system’s components (Mason, 2007). Consequently, individual managers cannot predict and plan longer-term outcomes (Kelly, 1995). Secondly, this continuous self-organization allows and encourages an infinite variety of creative responses to changing environments (Mason, 2007). He continues by saying that this happens when the system’s features alter, leading to disorder. This fact is important as too much order may cause a particular system to become inflexible. The implication here is that the system should be kept at the edge-of-chaos to handle change and this basically means that the system needs to be partially structured; compromising between configuration and surprise (Brown and Eisenhardt, 1998).

The reason why complexity theory is taken as a building block is because it aims to come up with findings about how systems live, adapt and change. However, hierarchical structures and their traditional authoritarian, control-oriented management style usually lack the capability of tackling with the global, national, market and consumer requirements that they face. As every task is preset with rigid boundaries from top to bottom, what is needed is a design where lower levels can steer (control) the organization in the direction specified by management (Senge, 1990; Gibson, 1999). In a complex environment however, the centralized hierarchies tend to conduct problem resolution at the higher echelons. Thus, ideally, control should be local, through self-management, rather than global, by central management. In complex and turbulent

environments this style of management is best practiced in flat, decentralized, organic structures, as they can maintain global stability but absorb a high degree of uncertainty and still adapt at the detail level (Peters, 1999; Prendergast and Berthon, 2000). Such an environment requires less prediction, control and stability and more self or group control to enable quick adaptation to the changes (Jaworski, 1988; Briggs and Peat, 1999).

In terms of teams, Tata and Prasad (2004) note that teams in hierarchic structures may not be capable of acknowledging problems as they occur owing to their restricted insight of the overall process and even when team members recognize problems, they do not possess the authority to solve them without management authorization. Consequently, it is believed that complexity theory must reside at the root of organizational design to provide organizations with dynamism and create an organizational milieu where teams can be effectively utilized.

### Resource – Based Theory

As the main framework of the Resource – Based Theory (RBT) views organizations as coalitions, modifying their structure and patterns of behavior so that they can acquire and maintain needed external resources. RBT characterizes the links among organizations as a set of power relations based on exchange of resources (Ulrich and Barney, 1984). Such resources can be tangible-natural resources, raw materials, land, machinery, human resources, etc.- as well as intangible –know-how, technology, trade secrets, trust, loyalty, distribution systems, advertising, brand name and so forth -. This theory proposes that as organizations cannot hold every single resource they need under

their roof, they are bound to lack some of the essential resources that are needed for their smooth operation. Thus, organizations lacking in essential resources seek to establish relationships with (i.e., become dependent upon) others in order to obtain needed resources. Also, it is a central notion of RBT is that the organizations attempt to modify their dependence relationships by reducing their own dependence or by amplifying the dependence of other organizations on them. This phenomenon was termed as “co-optation” by Selznick (1949). Within this perspective, organizations are viewed as coalitions altering their structure and patterns of behavior to acquire and maintain needed external resources (Ulrich and Barney, 1984).

RBT rests on three assumptions. First of all, organizations are presumed to be comprised of internal and external coalitions (Pfeffer and Salancik, 1978) which emerge from social exchanges that are formed to influence and control behavior. Second, the environment is assumed to contain scarce and valued resources essential to organizational survival (Pfeffer, 1978). Thus, the environment poses the problem of facing uncertainty for organizations in their resource acquisition processes. Uncertainty denotes the variability and complexity in acquiring resources from other organizations. Lastly, organizations are assumed to pursue two related objectives: acquiring control over resources that minimize their dependence on other organizations and control over resources that maximize the dependence of other organizations on themselves. Attaining either objective is thought to affect the exchange between organizations, thereby affecting an organization’s power. For example, Ulrich and Barney (1984: 472) assert that firms minimize self-dependence and maximize other-dependence by generating alternative sources of funding, by establishing numerous links with community leaders, by demonstrating higher demand for their products/services, and by providing intensive

services for clients. In doing so, the firms limit their dependency on others whilst gaining others' respect and dependence on them and thus, gaining relatively higher power.

As can be understood, the unit of analysis of RBT is the organization itself and its relations with the larger environment. However, it is important to underline that although RBT was initially formulated to discuss relationships among organizations, the theory is applicable to relations between units inside the organizations (Medcof, 2001). So as to deductively infer, the theory is pertinent to relationships among individuals and groups. Hence, it might be plausible to say that individuals can also have resources (i.e. know-how, expertise, tricks of the trade, experience, vision and so forth) that other individuals might lack. In order to carry out their jobs and/or tasks properly, a particular employee might need to collaborate with another in order to benefit from the "resources" of this other employee. Here, it is supposed that this is a very common case as one individual cannot possibly know everything about her/his job and/or assigned tasks and possess each and every resource that is needed to complete it. As it is highly probable that this is the case for a number of employees, the organizations can very well decide to select such individuals to participate in a team – an organizational unit - so that they can benefit from each other's resources while their joint efforts exceed their individual efforts. Here, the employees would be under continuous reinterpretation and cooperation, interrelating within an indefinite environment of change as referred to in the preceding section and a large number of challenging interests. In the same vein, a particular team can also possess resources that another team does not within a particular organization and hence those teams that lack specific resources may seek to establish relations in order to obtain the required resources.

Taking these inferences as a stepping stone, in this undertaking, one of the main goals is to shed light on how teams actually function in order to carry out their duties as well as how they handle interpersonal relations. In other words, one of the objectives is to see how the individuals benefit from each other and also from other organizational resources. Thus, it is deemed that this line of thinking qualifies RBT as an approach that is one of the main building blocks of this study.

### Network Organization Design

Coming from a world of hierarchic institutions, most of the organizations have familiarity to environments where certainty reigns. However, the rules of the game have changed now that we are well into the global, increasingly complex, uncertain and turbulent environment. Modern organizations now face dramatic challenges and demands that fall into four categories: Achieving multiple goals, relating to multiple stakeholders, managing resources and adapting to change (Mohrman and Cummings, 1989). Thus, it has become apparent that the authoritarian, control-oriented management style is not a good fit in the face of a more complex style which is organic, decentralized, facilitative of learning and experimentation and one that encourages change. Even further, the increased complexity and uncertainty have rendered many traditional organizational features obsolete and in such a rapidly altering milieu, what is essential for organizations is to constantly change their structure (Mohrman and Cummings, 1989). Thus, it is reckoned that the organizational designers should concentrate on creating, as Mason (2007) puts it, “an internal environment conducive to

co-evolution” where control is local through self-management, rather than global, by central management. As an implication to this, it should be highlighted that planning is never out of the question. It is still important; however, that the time horizon is shorter as change requires quick adaptation. Planning should regard things as alternative probable outcomes rather than a definite to-do list. For organizations, it is advised that this is only possible if the top executives relinquish some control to the lower levels creating them some room for flexibility and therefore meeting the needs of the customers in a timely manner.

### Hierarchic versus Organic Organizations

With these facts at hand, it is thought that a comparison of the hierarchic (i.e.bureaucratic) and more flexible organic types of organizations will make this point clearer at this instance. According to Weber’s theory of bureaucracy, these types of organizations are primarily characterized by specialization of functions, adherence to fixed rules, and a hierarchy of authority (Blau, 1974). This is the most common type of organization we see today. Control, order and stability can be said to be the main attributes of this type of structure. Hamel and Prahalad (1994) say that most companies are organized like the old Soviet Union: There's a hierarchy that is cleverly disguised as a perfectly sensible "resource allocation" process. This is such an organization that, work is divided into smallest parts possible, assigned to specialized workers, the responsibilities are diffused and authority is concentrated among few administrators and communication is in the form of instructions in the framework of rules, regulations and policies. We are familiar to this structure in the form of a pyramid, where these few

managers at the top make and enforce rules to their subordinates for the smooth operation of the business. Bureaucracy works like a machine system when it has to solve problems by thoroughly coming up with answers in accordance to predetermined guidelines. It must be noted that bureaucratic organizations require more time to change and/or adapt its rules to the environment when faced with changes compared to more organic structures. Such organizations are designed and built on ensuring continuity; not on enabling basic change because they can't break their existing frameworks (Hammer, 1996). Kelly (1995) also emphasizes the fact that any central-controlled complexity is unstable and inflexible. Bovasso (1992) maintains that such a static organizational structure formally prescribed by central authority cannot efficiently and expediently function in a milieu of rapid change.

In a nutshell, the features indicated above very well exhibit how performance demands and the complexity of the environment confronted by organizations today surpass the aptitude of the traditional, functional and hierarchical organizations to successfully coordinate and integrate (Galbraith, 1993; 1994). He continues by underscoring that conventional methods, which rely on hierarchically established resolutions, objectives, regulations, programs and job descriptions are inadequate in the dynamic, complex and challenging world now faced by countless businesses.

As it has been mentioned, constant change is a crucial aspect of organizations and therefore, organizations need to embrace it rather than trying to avoid it. When we consider the complexity and the potentially chaotic environment we live in, it has become evident that we cannot now rely on a hierarchical model to inflict and survive change down from management to operations. Instead, particular change activities

should be found at different points in the organization, which may be at any or all of the organizational levels (Beeson and Davis, 2000). However, this is only possible with the right organizational tools and designs. Thus, it is reckoned that organizations need to go beyond the familiar systems models and designs that have been implemented so far.

As a result, *organic structures* strike us with far more flexible and flat structures compared to hierarchic ones. This view is inspired from the behaviors of biological organisms and is applied to organizations. Here, the system acts as a whole or through subsystems with specific functions, to maintain itself in balance within a shifting environment (Beeson and Davis, 2000). This model assumes that many complex systems are non-linear, i.e. systems in which relationships between cause and effect are not constant, which is in fact very true for today's organizations. Given the complexity and non-linearity, there arises a need to shift our perception of the role and limits of control and management of organizations. In organic organizations, roles are perpetually redefined, the content of communication consists of information and authority is not hierarchically centralized and stratified (Bovasso, 1992). These are structures with fluid job descriptions, loose organization charts, high communication and a few rules that may be conducive to innovation (Brown and Eisenhardt, 1997). This is the only structure that addresses today's complexity and the new organizational models to be designed definitely need to include this aspect. What is more, such structures can, as Mohrman and Cummings (1989: 9) put it, enable organizations to handle greatly increased complexity, change and uncertainty and at the same time use fewer resources. That is why multinational and transnational companies select this type of structures to grow globally. This flexibility permits them to adapt to unexpected or uncalculated circumstances.

Brown and Eisenhardt (1997) believe that organic structures have insight to complexity theory and to time-paced evolution in order to describe organizations that are much more dynamic than they are assumed to be in traditional organization and strategy theories. Therefore, the diversity of practice, organization, and understanding that has been encountered can be better accounted for in terms of non-linear systems than by seeing them as deviations from a correct line or as failures of management or strategy (Beeson and Davis, 2000). Accordingly, to facilitate the endeavors towards dealing with constant change and fitting in as an effective actor in the global scene, the organizations need to involve organic features in themselves. It also must be noted that the organic organizations can be said to resemble the “adhocracy” type of organizations proposed by Toffler (1970) and further developed by Mintzberg (1979).

### Characteristics of Network Organization

A type of organic structure is the network structure and it is supposed in this study that, as an outlook and a vision, it should be at the heart of organizational design and hence the theoretical model to be proposed. Its benefits are found in its aptitude in being adaptive and creative since it permits cooperation from various specialists throughout the organization. A crucial network quality is being flexible and adaptable to change, and thriving networks are customer-driven – steered by the requirements and preferences of buyers (Piercy and Cravens, 1995). There are very few rules thus permitting individual creativeness and alleviation of potential obstructions that may get in the way. The horizontal managerial structure coupled with the free flow of ideas around the

organization enables the problems to be approached from a variety of angles, without any limitations as to how things “should” be done. Due to these reasons, network organizations are accepted to be more flexible, responsive and adaptive when they face changes in their environment.

Goold and Campbell (2002: 38) assert that networks score well in terms of good design principles since they can (1) create units that specialize on different market segments and sources of competitive advantage; (2) encourage cooperation between units by promoting interpersonal networking across unit boundaries; (3) take account of knowledge and competence by decentralizing most responsibilities to disaggregated, focused units; (4) reduce the cost of control and foster strong commitment through self-management to achieve high unit performance, and finally; (5) allow flexibility and adaptability by reducing hierarchy and power structures and promoting entrepreneurial responses to new opportunities.

Therefore, the network organizations seem to respond to the changing contingencies better than the hierarchical ones do. The economic conditions, the demands of the society as well as the strategies of existent and potential actors have the capacity to change overnight. Hierarchical structures lack the room to respond to such alterations in a timely manner since everyone and every task is connected to one another. Breaking this chain without careful planning may hypothetically even lead to the demise of a particular organization. Consequently, network organizations can be said to embrace uncertainty and change more effectively than the hierarchical ones.

Throughout the 1980s, organizations around the world responded to an increasingly competitive global business environment by moving away from centrally coordinated, multi-level hierarchies and toward a variety of more flexible structures that

closely resembled networks rather than traditional pyramids (Miles and Snow, 1992). In the case of businesses, the new developments mentioned above have led to the “network organization” with altering constellations of project teams and ever-changing goals. The slimmed down, reengineered organizations of the 1980s and 1990s are now being combined and reconstructed into meta organizations; that is the network organization (Nadler et al., 1992). As Hoogerwerf and Poorthuis (2002) say, network organization is a distinctive approach to designing a system for optimal sustainability in a world fraught with uncertainty, turbulence and discontinuous change. This is basically giving the individuals in an organization the opportunity to organize themselves, and the combined attempts to do so generate a collective consciousness as a network of people operating as a whole. Ultimately, every participant in a particular system acts autonomously, while at the same time this dynamic interaction gives rise to a synergy where the collective whole is larger than the sum of its parts. The network therefore consists of an organizational system that is able to join individuals and institutions, in a democratic and participative way, toward their common goals (Ghisi and Martinelli, 2006). As Miles and Snow (1995) also note, network organizations demand a flexible, spherical structure that can rotate competent, self-managing teams and other resources around a common knowledge base. However, it must not be forgotten that “network relations should be based on voluntary, not mandatory collaboration” (Goold and Campbell, 2002: 342). This type of organizations gets rid of unnecessary administrative mechanisms and layers, whilst empowering every person in the organization to function with the status of an entrepreneur and leader in her/his own right.

Overall, such organizations reveal themselves as more egalitarian and cooperative when they are compared to hierarchical structures. The main reason for this

is the fact that the communication channels are open to all directions, i.e. vertically and laterally. Galbraith (1973) reminds that the weakness of the hierarchical communication is the fact that each link has a finite capacity for handling information. As more exceptions are referred upward due to increasing uncertainty, the hierarchy becomes overloaded. Hence, the network type of communication can be said to supplement the hierarchy via reducing delays in responsiveness as organizational members will be allowed to attend to problems right where they occur. This makes network organizations more adaptive, responsive, innovative and flexible in the face of changing realities of the everyday life.

Such a system is very valuable primarily for its efficient use of information. Bovasso (1992) highlights that network organization maximizes information exchange between individuals. Structurally, networks facilitate rapid information transfer by providing horizontal links cutting across institutional boundaries to put people in direct contact with each other (Hearn and Pace, 2006). As the participants have their sets of complex relations with others unconstrained by hierarchical layers, the information to get the job done is utilized at exactly where it needs to. What is more, this free flow of information facilitates the creation of new information since each individual receives relevant (Quinn, 1982) and effective information in accordance with her/his function(s) in the organization. No time is lost for waiting for the “approval” of the executive levels. Thus, the decentralization of hierarchy characteristic of the network organization produces prudent responses to unplanned contingencies (Bovasso, 1992).

Further, the executive levels have gotten over their enduring practice to know about every single thing that is going on throughout the organization since this is an attempt close to impossible considering the complexity of relationships. In addition, this

basically means that the participants can co-control each other and the system using the information they have without needing top-down control mechanisms. This is why postmodern organizations are trying to adapt themselves to the idea of horizontal linkages. Horizontal linkage refers to the amount of communication and coordination horizontally across organizational departments (Daft, 2004). Organizations use information systems, direct contact, task forces, full-time integrators and teams as horizontal linkage mechanisms. These together can work wonders within the rigidities existent in the hierarchic organizational structures.

Hence, the “control” we know in traditional managerial sense becomes redundant as network governance relies on social coordination and control. Jones *et al.* (1997) say that social mechanisms in the forms of occupational socialization, collective sanctions, and reputations overcome the pressures of complexity in lieu of than authority, bureaucratic rules, standardization, or legal recourse. Hoogerwerf and Poorthuis (2002) believe that such a freedom is only natural in the face of complex interaction patterns among autonomous agents. Moreover, in the face of such patterns, the “limits on managerial ability” (Rivkin and Siggelkow, 2003) strikes us as coordination and dictating the best way to operate becomes irrelevant. As this becomes the reality we have come to live in, the organizations remain to be designed accordingly to prevent fragmentation from their environments.

This co-controlling feature of the network organization outperforms the hierarchical one as its direct outcome is flexibility. However, network organization should not be a chaotic one as it needs to provide some structure to help employees find their way (Mohrman et al., 1998). This viewpoint is permissive for an environment where teams can emerge. Such teams can reorganize themselves in accordance with the

changing goals or requirements in order to deliver what is expected of them. They do not require a central authority to (re)organize themselves and their knowledge as they know what is best in their work environments. This not only saves time for the top as well as the lower layers of the organization, but also facilitates the efficient use of work force at the right spot and at the right time, which is the foremost thing that is lacking in many hierarchic organizational configurations.

Having gone over the relevant literature concerning complexity theory and resource-based theory as well as network organization design that are deemed to be the building blocks of BPO and employment of teams, the next two chapters explain how business processes and teams as organizational design mechanisms can be used to bring the mentioned theories into real-life.

## CHAPTER THREE

### BUSINESS PROCESSES AND BUSINESS PROCESS ORIENTATION

This discussion brings us to the importance of business processes and business process orientation (BPO). Galbraith (1995) says that if structure is thought as the anatomy of the organization, processes are its physiology/functioning. Thus, processes should be at the heart of organizational design so that the well-being of the processes will reflect upon the customers in the form of quality goods/services. In other words, by placing business processes in the center, organizations can increase the capacity that will enable them to innovate, reenergize performance and deliver the value today's markets demand (Smith and Fingar, 2003).

#### Processes in Organizational Design

With the advent of the Industrial Revolution, Taylorist view of specialization has become the building block for job design, which is based on breaking a particular job into tasks. Task is a unit of work, a business activity normally performed by one person

(Hammer, 1996). However, tasks create a fragmented view of the business activities/functions as one most probably has a hard time conceiving how individual tasks combine into one whole to create a value for the customers.

On the other hand, Hung (2006) informs that “process” as a term is found in many disciplines such as systems thinking (Checkland, 1981), cybernetics (Beer, 1966) and systems dynamics (Senge, 1990). Further, Monge (1990) highlights that organizational theorists have talked about processes within social and organizational contexts. For example, Porter’s (1985) value chain accentuates that unique processes give way to competitive advantage. Basically, a process is a related group of tasks that *together* create a result of value to a customer (Hammer, 1996). Examples to processes include training, development, manufacturing, budgeting, planning, sales, order fulfillment and service. Processes are dynamic, amoebic and adaptable (Smith and Fingar, 2003). They identify the participants in a business process as employees, information sources, business units, computer systems, business partners, machines, goods, even business processes themselves in the case of outsourcing activities.

Spanyi (2006: 110) sees processes as the “third dimension of management”. The first dimension is the business itself which represents the domain of activities, or in other words, *where* the specific organizational operations are carried out to create value. The second dimension is the functions of the organization which define *what* is done to create the intended value. The third one is processes as they indicate *how* work is done as a critical component of management and as a means for achieving results for customers and stakeholders (Spanyi, 2006: 111).

Keen (1997) contends that most organizational processes are cross-functional and usually cut across traditional functional boundaries. Since processes cut across

internal functional boundaries, they can serve as a means for breaking down hierarchical barriers (Rummler and Brache 2002). Also, the fact that skills enhance processes and develop people must be emphasized. Skills such as selling, engineering, etc. represent themselves as critical factors for the success of organizations (Hammer, 1996). For example, a sales representative can work for many different processes within a given organization. Here, core process concept is a relevant notion for DeToro and McCabe (1997) who state that core processes are processes that exert strategic significance to the organization's success, and have eminent bearings on customer satisfaction. In other words, core processes gather around customer requirements and needs, are geared towards fulfilling them, and may very well involve cross-functional activities.

Additionally, lateral processes are also worth mentioning as they cut across the lines of authority and business functions. Galbraith (1995:14) illustrates the importance of lateral processes by saying that it is necessary to ensure the soundness of horizontal (lateral) processes that are designed around the work flow as these are becoming the primary vehicle for managing today's organizations. He further adds that lateral processes are information and decision processes that coordinate activities spread out across different organizational units and they are mechanisms for decentralizing general management decisions while each department with information about and a stake in an issue contributes a representative for issue resolution.

Therefore, importance of lateral processes can be said to be their capacity to offer coordination across different functions. However, Galbraith (1973) highlights that lateral processes must be integrated into the vertical processes as lateral processes are not replacements for vertical ones. This basically denotes that the process view in organizational design is a means for engendering the capacity of responsiveness,

adaptability, prompt maneuver and flexibility rather than totally disregarding the vertical functions and overall hierarchy. Thus, the process view, in a nutshell, is an approach that seems useful in diminishing the rigidities arising from hierarchic designs; it never discounts the need for them. This outlook will most probably leave enough room for the employment of teams, even cross-functional ones, in the organizations. It is because the amount of uncertainty and unanticipated change that organizations experience is higher in this post-modern era and this calls for lateral coordination and usage of lateral organizational forms (Galbraith, 1994), one of which is the team structure.

According to Hammer (1996), therefore, thinking in terms of business processes provides a novel diagnostic framework that facilitates breaking the functional mindset. Spanyi (2006: 53) lists the key elements of business process framework as (1) the critical enterprise level business processes that create value; (2) the critical few measures that define performance; (3) a plan for improving and managing enterprise level business processes; (4) accountability for results and (5) a communication plan that inspires and moves people to action. Such an approach would enhance customer focus by sidestepping the constraints of managing by vertical functions (McAdam, 1996). This ascertainment points to a holistic view of the whole organization rather than thinking about the business functions one by one. In turn, new team concepts, tools and methodologies are emerging to aid the analysis, the improvement and management of processes (Hung, 2006).

Hammer (1996) highlights that processes are the essence of a company for its customers as they only see the products/services produced through the processes of that specific company. In the post-modern age, customers are kings since they have many options and they do not have to settle for anything that companies offer them. Thus,

every process in a particular organization should be geared towards fulfilling the customers' needs and requirements as success lies in doing business the way customers want.

Of course, strategy should drive process design as processes represent the big picture view of who does what to get the work done, which in turn should dictate organizational design (Spanyi, 2006: 105). As mentioned above, change is the main goal in process design because in the world of business the ability to change is far more prized than the ability to create in the first place (Smith and Fingar, 2003). Hence, the identification and design of core processes of an organization is of utter importance as these processes will be the true value creating centers. Business success comes from better-quality processes as such processes facilitate the production of superior goods/services. Hammer (1996) notes that simple jobs and complex processes of the Industrial Age have given way to simple processes and complex jobs in the post-modern age. He explains this by saying that now people do larger components of the work that needs to be done; rather than isolated fragments.

Larger jobs will inevitably require more sophisticated individuals or so called professionals. Such individuals do what it takes, reflect on their work; they become active learners (Hammer, 1996). The nature of the work doesn't change; the individuals' ability and degree of sophistication do (Hammer, 1996). This stream of thought is related to Senge's (1990) systems thinking concept, where, just like thinking around process, understanding the relationships and interdependencies of variables in a given system which requires sophisticated specialists. Thus, the processes comprise many variables and the professionals are sophisticated enough to foresee the potential outcomes of their actions in terms of creating value for customers. Thus, such

professionals, not only managers, have responsibility for performing, supervising and controlling their work and ultimately, management becomes everyone's job (Hammer, 1996). As this becomes the case, process oriented structures leave enough room to cultivate people involvement.

Still, processes cannot always be carried out by mere individuals; thus, organizations need to employ teams in order to provide a value for their customers. Even with the best efforts, an individual has a finite capacity to do everything that is needed for an entire process by himself/herself. Hammer (1996) notes that every member in a particular team is after achieving team's objectives, which would involve cooperating with others while carrying their own set of duties. What is more, the team members should also be generalists (Galbraith, 1995) in order to conceive the scope of the processes to their full extent.

In order to demonstrate how designing organizations around business processes relates to complexity theory, Smith and Fingar (2003) emphasize that change takes place owing to the acquisition or loss of the participants of business processes, through the expansion or contraction of the relations among them and their interactions with the environment. As can be expected, these changes are mainly due to the complexities that a particular organization has to deal with and, therefore, the approach towards business processes should be appreciated within an evolutionary framework. What this means is that the notion of particular business processes change. It "moves" within time and, like a living entity, it exists in the past, the present and has possible futures (Smith and Fingar, 2003). The main connotation here is that business processes have to evolve and change over time, as do everything, in order to address the different complexities that might arise in their relevant context. Thus, only thinking around business processes can

provide organizational flexibility and intended organic texture against the rigidities of a hierarchic outlook can accommodate when contingencies alter. On the other hand, a hierarchic outlook most certainly cannot offer responsiveness and adaptability and leaves limited room for maneuver when faced with constantly changing features of the internal and external surroundings of organizations.

### Business Process Orientation

Having gone over some of the basic features of business processes, it becomes apparent that designing organizations around processes could overcome problems raised by the Taylorist view of structural specialization. Such a design would enable every employee in a particular organization – from the top management to the newly hired juniors – to become aware of how individual tasks combine to generate processes which in turn produce the outstanding goods and/or services that customers come back for. The business process orientation (BPO) that is referred to in this undertaking connotes a state of mind where there is awareness and understanding of the “whole”, how its main components relate to one another and how the big picture relates to creating value to attract and retain consumers. Processes therefore become central for businesses and according to Hammer (1996), this is because BPO expands the scope and breadth of jobs; requiring less administrative overhead, authorization, controls, reviews, audits and so forth. BPO is thought to enable workers to become self-managed as they are responsible for both performing the work and assuring that it is well-done. BPO opens communication channels, fosters cooperation and information usage at the right time and

right place and also becomes a means for *co-control* (Kelly, 1995) whilst providing room for flexibility and innovation. It requires customer focus, cross-functional commitment and value chain concepts to be in the forefront of management thinking and acting (Spanyi, 2006).

One of the main elements of BPO is flattening of the hierarchy (Kirkham, 1996). In recent years, many companies have started to move away from a relatively functional and hierarchical structure to one with a focus on cross-functional teams and flattened organizational structures (Ostroff, 1999). Both Ostroff (1999) and Spector (1999) assert that a horizontal management approach should be organized around core processes and enhance the interaction of employees from different departments, and encourage strong working ties and improved communication.

Thus, it can be said that BPO could be an antecedent to utilization and accommodation of teams in organizations and shedding light on this issue is one of the objectives of this academic endeavor.

## CHAPTER FOUR

### TEAMS AND TEAM PROCESSES

Mason (2007) maintains that a fundamental problem of strategy making in a fast changing environment is to achieve “adaptive innovation” at the edge-of-chaos, while still achieving consistent and reliable execution of the strategy. The answer to this problem lies in organizational design that addresses the realities of the constantly changing political, economic and business environments. An obvious priority in such an environment is the necessity for organizations to relentlessly modify their structure (Mohrman and Cummings, 1989). The elements of organizations are inevitably interdependent and supportive of one another; however, their alignment when dealing with complexity and constant change is of utter importance. Also, the marginal costs and benefits associated with any design element depend on the configuration of others (Rivkin and Siggelkow, 2003). Individual and short-term oriented personal efforts may cause unnecessary and counter-productive competition among different functions of a particular organization. It must not be forgotten that without facilitative, flexible, responsive and adaptive organizational designs, organizations will not be able to maintain themselves in the face of the requirements of the post-modern business

environment, let alone crafting and implementing strategies that will suit their goals. In other words, the performance pressures and the complexity of the environment being faced by organizations today have exceeded the capacity of the traditional, functional and hierarchical organization to effectively coordinate and integrate (Galbraith, 1993; 1994). Traditional approaches which rely on hierarchically determined decisions, goals, rules, programs and job descriptions are insufficient in the dynamic, complex and demanding world now faced by many companies (Mohrman et al., 1995: 9). Therefore, in dynamic, complex and uncertain settings, organizations have to build on and subdivide their parts to be able to attend to all the relevant elements of the environment (Lawrence and Lorsch, 1969).

Further, the advances in information technologies break down barriers in the sense that employees at the lowest levels of an organization now theoretically have access to information that would allow them to make informed decisions about matters that used to be dealt with higher levels in the organization (Mohrman et al., 1995). As it becomes easier for people in different work units to communicate, it also becomes easier for them to collaborate (Mohrman et al., 1998). They continue by highlighting that work is now more abstract than physical, more likely to be designed for teams than for individuals, and more likely to cross boundaries than to be confined within particular organizations, departments or functions (Mohrman et al., 1998: 154). Therefore, teams form and spread, reinforcing the perception that intraorganizational boundaries can be easily crossed, and in time these formal distinctions will act even less as barriers to collaboration than as facilitators (Mohrman et al., 1998). Organizations more and more rely on teams to do much of the work conventionally carried out by individuals in response to increasing demands for effectiveness and flexibility posed by rapidly

changing organizational environments in the face of current global and dynamic organizational environments (Griffith and Neale, 2001). Thus, Hackman (2002) suggests that the use of teams has become an ever-increasing popular work design in all types of organizations. This is particularly true for settings where work is either highly-interdependent or rapidly changing, then, there comes about a strong argument for the basic organizing unit being a *team* rather than an individual (Galbraith et al., 1993). To this end, by building effective teams, organizations benefit by improving their decision-making capacity, enhancing employee commitment and involvement, increasing organizational collaboration and cooperation, and providing performance growth and development opportunities for employees (Gilley & Gilley, 2007).

### Teams in Organizations

To get a sense of what teams are, some of the well-known definitions in the literature can be presented: To Dyer (1984) teams are social units composed of members with high task interdependency as well as shared and valued common goals. Hackman (1987, 1990) identifies teams as integral social systems made up of interdependent members with differentiated responsibilities. Sinclair (1992) defines teams as distinctive class of groups that are more task-oriented than other groups and that have a set of obvious rules and rewards for their members. Mohrman et al. (1995: 39-40) describe teams as a group of individuals who work together to produce products or deliver services for which they are accountable, share goals, are interdependent in their goal accomplishment and affect the results through their interactions with one another. Cohen and Bailey (1997: 241) say

that teams are a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems (e.g. business unit or the corporation), and who manage their relationships across organizational boundaries. Katzenbach and Smith (1993) defines teams a small number of people with complementary skills who are committed to a common purpose, established performance goals, and approach that hold themselves mutually accountable. Also, Clutterbuck (2007) contends that teams are composed of a small number of people with complementary skills who are committed to a common purpose, performing goals, and approach, for which they hold themselves mutually accountable. Finally, Gibson et al. (2009) characterize teams as a special type of work group, consisting of two or more individuals, responsible for achieving a goal(s) or objectives.

Teams are essentially established as forums in which various interdependent specialties can integrate their work to accomplish collective goals (Katzenbach and Smith, 1993; Mohrman et al., 1995). Team members are interdependent for accomplishing their goals and they affect the result through their interactions with one another. Hence, it could be said that team members have mutual commitment which engenders performance greater than the sum of the performance of its individual members or synergy.

As the complexity of the workplace continues to grow, organizations increasingly depend on teams (Salas et al., 2008). Some of the industries where teams are employed are aviation, the military, health care, financial sectors, nuclear power plants, engineering problem-solving projects, manufacturing, services and so forth. Examples of companies that employ teams include Miller Brewing Group, Pfizer,

Colgate-Palmolive Company, Eastman Chemical Company (Wellins et al., 1994) along with the well-known examples of NASA, Hewlett-Packard, Motorola, AT&T, Xerox, Boeing, General Electric, Saab, Saturn and so forth.

The use of teams and teaming mechanisms to integrate organizations laterally has increased dramatically in recent years and many production settings have found that they could significantly improve their effectiveness by establishing teams that have responsibility for the “whole” of the work (Mohrman et al., 1995). Galbraith (1973: 53) points out that teams involve design decisions concerning the basis of the team, the composition of membership, the levels at which they are to operate, the range of their discretion and the frequency of their meetings. Teams are typically organized hierarchically and occasionally dispersed geographically; they must incorporate, synthesize, and share information; and they need to coordinate and collaborate as task demands alter during a performance period to realize their assignment (Salas et al., 2008).

### Purpose and Advantages of Teams

Teams may be established for a number of different purposes in organizations (Mohrman et al., 1995; 1998). Of course, the rationale behind forming teams differs from organization to organization and from situation to situation, but the most frequent motives for founding teams are boosting productivity, flattening of organizations, needing more flexibility and speed for decision making purposes, workforce diversity, quality, and customer satisfaction (Larson & LaFasto, 1989; Hollenbeck et al., 2007; Gibson et al., 2009). In particular, Mohrman et al, (1998: 165) note that teams provide

potential for producing products and delivering services faster than competition does at lower cost and higher quality. West (2004) implies that teams can respond to a fast-changing environment, facilitate learning, convey financial advantages, and assist change better than can a set of individuals that does not share a common objective. Sassenberg et al. (2007) point out that teams should be used when an intricate problem requires employees with various aptitudes and functional proficiency to work together especially when making the wrong decision is too costly for a particular organization. Salas et al. (2008) note that teams could be utilized when errors trigger severe consequences; when the task complexity surpasses the aptitude of an individual; when the task environment is ill-defined, ambiguous, and stressful; when numerous and rapid decisions are required; and when the lives of others rely on the joint insight of individual members. Mohrman et al. (1995) maintain that teams accommodate complex processes better than hierarchical and functional approaches as teams prove themselves as mechanisms to address coordination needs in a timely and cost-effective manner. Kang et al. (2006: 1682) add to the advantages of the use of teams as being an integral part of business success, contributing to competitive advantage, a way of pooling ideas, expanding and improving work processes and job (re)design, enabling direct participation and empowerment leading to better decision-making and more creative solutions and fostering motivation while helping reduce conflicts and miscommunication. Further, Galbraith (1993; 1994) also predicts that the performance pressures and the complexity of the environment faced by organizations today have exceeded the capacity of hierarchical structures and hence, teams are used more and more to integrate and coordinate various parts of a particular organization which paves the way for more laterally oriented designs.

Organizations also have been employing teams in knowledge work areas (Mohrman et al., 1998) that is a line of work which might be come across frequently in service firms. It has been recognized that the fit between strategy and organizational design is a competitive advantage (Nadler et al., 1992; Galbraith et al., 1993). Thus, it is expected that teams fit with the changing nature of work and possess the elements that are required to address the issues arising from the changing requirements of the post-modern marketplace as well as better informed customers. Work is now more abstract than physical, more likely to be designed for teams than for individuals and more likely to cross boundaries than to be confined within particular organizations, departments, functions and as a result, organizations have to become flexible, empowering and team-based (Mohrman et al., 1998). Hence, to meet these requirements, organizations must become learning systems (Senge, 1990) in order to achieve information that is current and relevant so that they can rapidly update, refine, redesign and improve their product/service offerings. In a practical sense, information becomes the work and it is what is exchanged among team members as they analyze and deliberate (Mohrman et al., 1998). Therefore, in line with Haas' (2010) view, self-managing teams might be the ultimate goal for organizations, as such teams can perform more effectively by merging independence and external knowledge to secure the advantages of each while compensating their risks. In many organizations, self-managing teams conduct knowledge-intensive work such as designing new products, developing innovative technologies, and delivering professional services to clients (Hackman, 2002; Mohrman et al., 1995).

In order to learn effectively, Galbraith (1973) notes that organizations need to increase their capacity to process information. As have been noted in the previous

section, hierarchic structures have proved themselves to be less adequate in doing so. Henceforth, it is supposed that teams pioneer a breath of fresh air in terms of providing a novel tool for increasing the capacity for learning and information processing for organizations. Senge (1990) emphasizes the fact that teams can learn just like individuals do; however, a particular team's learning process is much more complex. This learning process is in line with the complexity of the global marketplace and therefore teams can be said to introduce hierarchies a new outlook and room for flexibility in the face of ever-changing dynamics of the business world.

What is more, teams provide linkages between a range of perspectives and functions within a given organizational setting. Multiple participants can bring diverse points of view and proficiency that can be used to distribute information extensively within a given organization in order to make integrative decisions (Mohrman et al, 1995). When these perspectives are linked, innovations are more prone to take place as this facilitates reframing of problems and solutions which would otherwise would have not been possible with individual perspectives (Senge, 1990). Furthermore, teams can be a way to handle lateral integration (Galbratih, 1973; 1994; Lawrence and Lorsch, 1969) without proliferation of the management structure which is beyond hierarchy and bureaucracy (Mohrman et al., 1995). They also underline that one of major design challenges is to integrate the work of various contributors and teams are structural mechanisms through which task interdependencies can be worked out, issues involving trade-offs between different perspectives can be resolved and solutions and approaches can be determined.

Obviously conflicts among co-workers are more likely to occur in team environments because people from different functions, disciplines, departments and

personal backgrounds view their worlds in dissimilar ways (Mohrman et al., 1998). This could be time consuming on the part of the organization. However, dealing with differences openly can help resolve conflicts and this will produce innovation and improve business performance (Mohrman et al., 1995).

Having seen the advantages that teams can bring to organizations, Sundstrom (1999) describes teams as integral to organizational success in this global, fast-paced, customer-driven economy. Kang et al. (2006) inform that the call for teams and teamwork in organizations continues to be one of the more widespread and recurrent ideas of many practitioners and academics. Also, the use of teams in management often appears on the best practice lists such as that of Pfeffer's (1998). These facts clearly illustrate that teams should be a fundamental part of the post-modern organization as many organizations have started to rely on knowledge work more and more each day. If not already, teams should be the building blocks of organizations rather than individuals (Leavitt, 1975; Nadler et al., 1992; Katzenbach and Smith, 1993; Mohrman et al, 1998). Galbraith (1973) even goes even further to say that an entire hierarchy of teams can be designed. Peters (1987) underlines that the power of the team is so great that it is often wise to violate common sense and force the team structure on almost anything. Teams integrate and enhance formal structures and processes (Katzenbach and Smith, 1993). Moreover, they believe that teams are more flexible than larger organizational groupings because they can be assembled more quickly and deployed, refocused and disbanded usually in ways that enhance rather than disrupt more permanent structures and processes (Katzenbach and Smith, 1993: 15). Hence, teams can be said to put BPO into perspective as it may sound too idealistic to be able to achieve fully what BPO involves; but teams prove to be tangible tools that enable organizations to apply BPO principles.

Wellins et al. (1994) note six recurring principles that guide the design from the hierarchical structure to one that accommodates teams at the end of their investigation of 20 firms that utilize teams. In the traditional structure, work is designed around functions, there is no sense of ownership, there are single skilled jobs, leaders govern teams, the support staff/skills are outside of the teams and managers make all organizational decisions. On the other hand, in the team design, work is designed around processes, teams own a product, service or process, there are multi-skilled and cross-trained individuals, teams govern teams, support staff/skills are incorporated into the teams and teams are involved in organizational decisions. An interpretation to these findings could be to say that the hierarchic structures that rely on individuals are task oriented, every member and function is independent from one another, inward-looking (i.e. knows what is going on only in one's own function/department/unit), logical (i.e. rational), divergent and have a fragmented approach towards matters. Alternatively, the structures that accommodate teams are process-oriented, contain many interdependencies in terms of relationships and functions they use, outward-looking (i.e. know what is going on with the whole process they work in and/or the whole organization), sensitive towards others, convergent in order to provide coordination and co-operation and have a holistic approach to matters. The following table summarizes the findings:

Table 1. Team versus Individual

Team	Individual
Process	Task
Interdependent	Independent
Outward	Inward
Sensitive	Logical rationality
Convergent	Divergent
Holistic	Fragmented

Source: Adapted from Wellins et al., 1994

### Types of Teams

There are a number of taxonomies in the literature that are worth mentioning in terms of different types of teams. Firstly, Mohrman et al. (1995; 1998) determine the kinds of teams that are employed as follows:

- *Work Teams* are established to perform in the processes that result in design, manufacturing and delivery of products/services. Examples include production or sales teams.
- *Project and development teams* produce one-time outputs, such as a new product/service or a new information system. They frequently draw their members from different disciplines and functional units so that specialized expertise can be applied to project at hand.
- *Integrating Teams* are established to makes sure the work across various parts of the organization fits together. Their goal is the coordination of efforts toward the shared focus.

- *Management Teams* are a special case of integrating teams that are responsible for coordinating the management of a number of subunits (teams, work groups) that are interdependent in the accomplishment of a collective output.
- *Parallel (Improvement) Teams* are used for problem solving and improvement oriented activities. They pull people together from different work units to perform functions that the regular organization cannot perform well. They are also established to make improvements in the capability of the organization to deliver its products and services effectively. Examples include process redesign teams, quality improvement teams.
- *Ad hoc Networks* consist of individuals and groups from the same or other organizations who connect with each other on the basis of shared interests. Such networks offer easy, flexible, spontaneous access to knowledge. They can be formed rapidly in response to changing needs.

Secondly, another way to describe teams is via their design and Drucker (1995) provides the following taxonomy by noting that the key to success in team design is to use the right kind of team for the right job:

- *Work (Functional) Teams* are teams where every member holds a fixed position and is not responsible for anything outside that position. Members are a part of the team because they work in the same group or department. The team itself is inflexible but works well if every member understands the task and process at hand and has experience.

- *Cross-functional Teams* are teams where every member also holds a fixed position but each are experienced to work as a team and adjust to each other. They may represent different levels in an organization and different functional areas. An example could be the Japanese quality circles.
- *Self-Directed Teams* are teams where each member has a primary position but is flexible and can cover a team mate as needed. They may also represent different levels in an organization and different functional areas. Such a team is effective because of its high flexibility in decision making and engaging in tasks.

Finally, depending on their duration and objectives, Gibson et al. (2009)

classify the team designs that are used to support organizational objectives as problem solving, work, virtual, cross-functional, and self-directed. The literature review on this aspect yields the following definitions: To Hackman (2002), problem-solving teams are formed on a short-term basis to focus on a specific problem or a requirement that challenges the organization. Work teams are small groups of interdependent individuals who share responsibility for outcomes of their organization (Sundstrom et al., 1990).

Solomon (2001) characterizes virtual teams as those that rely on interactive technology such as bulletin boards, e-mail, instant messaging, meeting managers, teleconferencing, videoconferencing, Web casts, and white boards to work together when separated

physically. Cross-functional teams are compiled of individuals from diverse departments or work areas that collaborate on a task, problem, or project basis (Gibson et al., 2009).

Kirkman et al. (2000) maintains that self-directed work teams are unmanaged teams that

run themselves that consist of individuals that have taken on the responsibilities of their former supervisors while retaining their prior responsibilities.

### Traditional versus Team-Based Organizations

Having seen various taxonomies that more or less overlap, the ultimate outlook that organizational designers should carry is to create a hierarchy of self-directed teams or a team-based organization as a post-modern way to respond to the needs and requirements of their customers. This will also empower the teams to attain goals that fit with the overall strategy of the organization and conform to goals of the larger business units within which they are nested (Mohrman et al., 1995). Thus, an organization can place individuals in those teams where their skills and knowledge can be best used, irrespective of what rank on a bureaucratic hierarchy they occupy (Mohrman et al., 1995). They continue this line of thought by saying that in essence, the hierarchy is redefined in terms of the scope and domain of the decision making authority of a team within the system rather than in terms of a chain of individual reporting relations. This decision making authority can derive legitimately from expertise and the power of getting things done (Mohrman et al., 1998) and also extends to influence decisions made elsewhere that impact one's work (Mohrman et al., 1995).

After having gone over the basic characteristics and taxonomies of teams, the organizations that employ teams will be referred as team-based organizations from here onwards. To put what has been discussed into perspective, a comparison between traditional organizations and team-based organizations is deemed to be vital. The

following table exhibits how team-based organizations differ from traditional ones in terms of vision, structure and management style (adapted from Wellins et al., 1991).

Table 2. Traditional versus Team-Based Organizations

Traditional Organization	Team-Based Organization
Management-driven	Customer-driven
Work designed around functions	Work designed around processes
No sense of ownership	Team owns a product, service, process
Isolated specialists	Multi-skilled work force
Many job descriptions	Few job descriptions
Limited information	Shared information
Many management levels	Few management levels
Departmental focus	Whole business focus
Management-controlled	Team-regulated
Policy/Procedure-based	Values/Principles-based
Selection-based employment	Training-based employment
Top-down performance appraisal	360-degree feedback
Autocratic leadership	Participative leadership
Change is temporary	Change is ongoing
Seemingly organized	Seemingly chaotic
Incremental improvement	Continuous improvement
High management commitment	High worker commitment

Source: Wellins et al., 1991

Therefore, these views verify that teams are in fact much related to RBT and network organization design. In terms of RBT, while providing room to deal with complexities of the business environment, teams also offer an organizational milieu where individual employees find a platform to benefit from each other's resources (i.e. know-how, functional expertise, vision and so forth). As a particular employee cannot

know every single thing to perform, it is inevitable for her/him to collaborate with others. The collaboration activities can be conducted within a team setting and as the literature exhibits, this is becoming a very common practice as competition increases and employing teams turns out to offer many advantages. As members of the team become interdependent, they are able to benefit from each other's resources while their combined efforts exceed their personal efforts. Thus, teams become a mechanism where individual resources can be distributed within a particular organization towards everyone's mutual benefit and at the end of the day, this will inject a sense of collective accomplishment.

Galbraith (1977: 35) emphasizes that the organizational design problem is one of achieving coherence among strategy, organizing mode and integration of individuals. Dwelling on this statement, it is plausible to think that teams employed within a framework of network design can offer a solution to organizational design problem is in line with the realities of business conduct in the recent years. As network organization design is known for its aptitude in being adaptive and creative since it permits cooperation from various specialists throughout the organization, it is reckoned that what it involves is the organizational vision necessary for the emergence of teams. Since networks are steered by customers, the teams serve as flexible and adaptable mechanisms where they can be designed towards customer centricity when requirements change while supplementing and counterbalancing the weaknesses of the hierarchic structures. Thus, as network design is an excellent tool for promoting voluntary cooperation, teams serve as an organizational system that unite individuals in a participative and cooperative manner. When employees operate within a team, their interaction is likely to give rise to more ideas and innovations exponentially when

compared to individual work. Given that synergy is actually the ultimate goal in network design, teams create an environment that facilitates efficient organizational information creation and collection. Once information is turned into concrete organizational knowledge, basis for innovations that consumers crave are more prone to take shape. Thus, although network design might sound too idealistic, it is considered that teams are the perfect design component to introduce flexibility and perspective to otherwise rigid structures and bring organizations one step closer to being more organic, adaptable and innovative rather than being static in the face of complex change.

### Team Processes

At this point, approaches in the team research literature should be briefly demonstrated so as to provide a framework for team processes. The most well-known and popular approach is the classic input–process–outcome (I-P-O) systems’ framework which then developed into the standard model for early conceptualizations of team cognition and a tool to understand team performance. McGrath (1964) conceived that inputs to a particular team influence its output by means of member interactions (i.e. group process) that take place within the team. In this model where each step takes place sequentially, team inputs consist of what individual members bring to the group in terms of attitudes, experience, knowledge, skills, abilities, and personality characteristics as well as team characteristics such as cohesiveness, heterogeneity and so forth. Team process denotes the fashion in which the team members interact with each other over time and the practices that the team takes on to convert its inputs into outputs. Output refers to the

tangible and intangible products, services, ideas, or suggestions produced by the team for internal or external customers. Thus, this model basically studies the interaction processes as mediators of the effects of individual, group, and environmental factors on team output and cohesiveness (Hackman, 1987). However, Ilgen et al. (2005) put forward that this model falls short of capturing the emerging consensus about teams as complex, adaptive systems. They contend that many mediating factors that intervene and transmit the influence of inputs to outcomes are not processes. They also assert that the model limits research by implying a single-cycle linear path from inputs through outcomes, even though the authors of the classic works (e.g. Hackman, 1987) evidently specified the potential for feedback loops and lastly, the I-P-O framework tends to suggest a linear progression of main effect influences proceeding from one category (I, P, or O) to the next. Simply put, they believe that this framework poses constraints to one's vision when conducting team research.

Although the I-P-O framework was a leading approach in team research, emphasis assigned to the role of organizational context has been growing (Hackman, 1987; Sundstrom, 1999) as well. Further, Day et al. (2006) hold that, the I-P-O model is yielding to more multifaceted and practical frameworks. They report that there has been greater emphasis on the role of time in team processes, particularly in terms of understanding the different kinds of performance episodes that teams might experience (Marks et al., 2001).

Ilgen et al. (2005) concentrate on the importance of outputs serving as inputs in subsequent input-mediator-output-input (IMOI) team episodes. As they substitute mediators for processes, they give credit to the broader range of variables that have mediating effects with explanatory power for explaining variability in team performance

and viability. The extra input at the end of the model cites cyclical causal feedback.

Another trend has been in examining how forming collective identities in teams might enhance both team processes as well as team outcomes (e.g., Van der Vegt and Bunderson, 2005).

Having seen the dominating approaches in the literature, team processes can now be addressed. McGrath (1984: 11) refers to team process as patterned relations between team members. Cohen and Bailey (1997: 244) define team process as interactions such as communication and conflict that occur among group members and external others, whereas Marks et al. (2001: 357) define team process as members' interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed toward organizing task work to achieve collective goals. Team processes are the means by which members work interdependently to utilize various resources, such as expertise, equipment, and money, to yield meaningful outcomes such as product development, rate of work, team commitment and satisfaction (Marks et al., 2001: 357). Marks et al. (2001) distinguish team processes from taskwork which represents *what* it is that teams are doing, whereas teamwork describes *how* they are doing it with each other. As for the latter two definitions, Cohen and Bailey (1997) perceive team processes as stable group psychological traits whereas Marks et al. (2001) see it as more dynamic and varying emergent cognitive and affective states (Antoni and Herte, 2009).

Out of a taxonomy of team processes, Marks et al.'s (2001) have been the most comprehensive and extensive one. They create their taxonomy based on previous efforts that were conducted with a rather micro outlook whereas Marks et al.'s (2001) taxonomy originates from a macro observation of teams. They categorize team processes

as transition and action phases (Marks et al., 2001: 360). *Transition phases* are periods of time when teams focus primarily on evaluation and/or planning activities to guide their accomplishment of a team goal or objective whereas *action phases* are periods of time when teams are engaged in acts that contribute directly to goal accomplishment (i.e., taskwork). To refer back to I-P-O model, these cycles are nested in action and transition phases and thus, outputs generated from processes that occur during a transition phase, for example, become inputs for the ensuing action phase (Marks et al, 2001: 361). They also note that the nature of team process changes as teams relocate back and forth between action and transition phases. The frequency, length, and predictability of action and transition phase alterations are functions of a variety of variables, such as team objectives, environment, expertise, norms, and leadership (Marks et al, 2001: 361). As a last point, the underlying principle of their framework is that well-executed transition processes facilitate successive action processes, which consecutively associate significantly to performance where they did not exclude the prospect that transition processes might also relate directly to team performance (Marks et al., 2005).

Marks et al.'s (2001) taxonomy contains a hierarchical structure where the ten process dimensions are nested within the following three higher-order categories: (1) transition phase processes, (2) action phase processes, and (3) interpersonal processes. They further argue that some processes are more likely to occur during transition periods, whereas others are more likely to occur during action periods. As for interpersonal processes, they contend that those are expected to occur throughout transition and action phases, although, naturally, the pertinent issues change at different times (Marks et al., 2001:362).

Transition processes include mission analysis, goal specification, and strategy formulation and planning. Mission analysis involves the assessment and analysis of the team's mission in terms of identifying its main tasks, finding out about its operative environment and available resources that are needed for carrying out what is expected from the team. Goal specification entails the detection and prioritization of goals for mission completion. This detection process necessitates diagnosing what and how much must be get done within specified time framework and within specified quality standards which in turn leads to a shared understanding of the team's objective(s). Strategy formulation and planning indicates the cultivation of guiding principles needed for mission accomplishment. When this process is complete, the resulting strategies include information about member roles and responsibilities, the order and timing of actions, and how task-related activities should be executed (Marks et al., 2001).

Marks at al. (2001) further classify the strategy and planning dimension into three subdimensions: (1) deliberate planning, (2) contingency planning, and (3) reactive strategy adjustment (Marks et al., 2001: 365 –6). Deliberate planning refers to the formulation and communication of chief guidelines for mission accomplishment. Contingency planning refers to the preparation of alternative plans and strategy adjustments in response to anticipated changes in the performance environment and therefore having “Plan Bs”. Reactive strategy adjustment is the modification of existing strategy or plans in response to unforeseen modifications in the performance environment and/or performance feedback.

Action phases, on the other hand, include monitoring progress toward goals, systems monitoring, team monitoring and backup responses, and coordination activities. Monitoring progress toward goals basically entails tracking task and progress headed for

mission accomplishment, making inferences about the system's information in terms of what must be carried out for goal realization and giving feedback about these issues to team members. System monitoring, also known as situational assessment, includes tracking team resources and the surrounding conditions as they concern mission fulfillment. Marks et al., (2001: 367) note that this process involves (1) internal system monitoring, tracking team resources such as personnel, equipment, and other information that is generated or contained within the team, and (2) environmental monitoring, tracking the environmental conditions relevant to the team. Team monitoring and backup comprises of supporting team members when they are executing their tasks. This supporting role may occur by (1) providing a teammate verbal feedback or coaching, (2) assisting a teammate behaviorally in carrying out actions, or (3) assuming and completing a task for a teammate (Marks et al., 2001: 367). Finally, coordination activities involve organizing the order and timing of interdependent actions in order to align team member inputs towards goal accomplishment.

Last but not least, interpersonal processes are made up of three dimensions which are conflict management, motivating/confidence building, and affect management. These processes can take place during both transition and action phases. Marks et al. (2001: 368) define two types of conflict management processes that can be used to resolve or minimize conflict: (1) preemptive conflict management involves establishing conditions to prevent, control, or guide team conflict before it occurs, and (2) reactive conflict management involves working through task, process, and interpersonal disagreements among team members. Motivating and confidence building involves engendering and safeguarding a sense of shared confidence, enthusiasm, and task-based solidarity concerning goal achievement. Finally, affect management entails

regulating member emotions during mission accomplishment, including (but not limited to) social cohesion, frustration, and excitement (Marks et al., 2001: 369).

In conclusion, teams prove themselves as a design element which provides organizations with flexibility, adaptiveness, responsiveness and customer-centricity. Apart from their many advantages, they also help to put BPO into perspective which may seem unachievable when what it entails is considered within hierarchical contexts. In addition, team processes are vital in understanding how teams operate in the organizational level while providing insight to interpersonal relations between team members. Thus, it is deemed that understanding team processes will give an idea about how far the teams have gone in terms of BPO.

The following section will provide the conceptual model which is developed in light of this literature review along with the hypothesized relationships between constructs.

## CHAPTER FIVE

### CONCEPTUAL MODEL AND HYPOTHESES OF THE STUDY

Considering the literature review up to this point, although the relationship between team processes and team effectiveness and/or performance has been investigated, BPO as a construct has not been proposed as an antecedent to the mentioned relationship. Hence, it is deemed that the constructs making up the developed conceptual model need to be briefly discussed so as to clarify understanding of the subject and the associations between constructs.

#### Constructs

BPO, Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance are the constructs that make up the theoretical model that is to be proposed. Firstly, as mentioned in the previous section, BPO will essentially be considered as an overall commitment of a team towards business processes that create value for the customers. It connotes a state of mind where there is awareness and understanding of the “whole”, how its main components relate to one another and how

the big picture relates to creating value to attract and retain consumers. BPO is thought to permit employees to grow to be self-managed as they are accountable for both carrying out the work and ensuring it is well-done. As processes must become central to businesses according to Hammer (1996), BPO includes a view of processes as the building block, jobs, management and measurement systems designed around these processes and cross-functional commitment along with value chain concepts (Spanyi, 2006). BPO opens communication channels, advances collaboration and information usage at the right time and right place. Thus, the model will treat BPO to be an antecedent in the utilization and accommodation of teams in organizations.

For the investigation of teams, team processes will be explored as constructs so as to stay within the process framework. The researcher believes that team processes are vital in understanding how teams operate in the organizational level while providing insight to interpersonal relations between team members. Furthermore, Hackman and Morris (1975) argue that the key to understanding effective groups lies in the process of the group. Thus, it is assumed that understanding team processes will give a clearer idea about how far the teams have gone in terms of BPO.

Team processes are the means by which members work interdependently to utilize various resources, such as expertise, equipment, and money, to yield meaningful outcomes such as product development, rate of work, team commitment and satisfaction (Marks et al., 2001: 357). They also note that team processes describes *how* members of a particular team work together to achieve mutually aspired goals. Further, Marks et al.'s (2001) taxonomy of team processes has been the most comprehensive and extensive one which originates from a macro observation of teams. Hence, their taxonomy provides the researcher a tool to investigate teams at their level rather than having to aggregate

individual understandings into the team level. As mentioned in the literature review section, Marks et al. (2001) identify that teamwork processes occur during two phases of team performance episodes: transition and action. They explain that in transition periods, teams focus primarily on mission analysis, planning, goal setting and evaluation of activities while in action periods, teams conduct task work and rely heavily on coordination and monitoring activities that lead directly to goal accomplishment. Thus, it can be inferred that before teams actually act on carrying out tasks, they assess the environment and their resources in relation to what is expected from them. As for the action processes, these are periods of time when teams are engaged in acts that contribute directly to goal accomplishment (i.e., taskwork). As an implication, Marks et al. (2005) hypothesize that well executed transition and action phases relate significantly to Team Effectiveness / Performance. On top of this, they also identify what they call Interpersonal Processes which are expected to occur throughout transition and action phases, although, naturally, the pertinent issues change at different times (Marks et al., 2001: 362). These processes are made up of three dimensions which are conflict management, motivating/confidence building, and affect management.

However, the conceptual model of this study will not include transition processes as the researcher is interested in how teams operate and what they actually end up doing rather than how they assess their environment before they actually do anything. The reason for this choice is the curiosity to illustrate how BPO reflects in the way in which teams operate and perform rather than exhibiting how BPO might be related to the teams' assessment of their respective environments. Further, the theoretical model to be investigated in this endeavor is a first in the field and therefore it aspires to provide a building block for further studies. Accordingly, it is deemed that investigating what

teams do rather than what they think of the subject will offer a starting point that is easier to grasp as it will reflect the observable behaviors of teams rather than commenting on unobservable cognitive processes. Hence, Team Action Processes will be another construct in the model that involves monitoring of progress toward goals, resource and systems monitoring, team monitoring and back up as well as coordination.

Furthermore, the investigation of Interpersonal Processes is a requirement in this model because it is thought to have the potential to reveal the extent to which team members take each other's expertise and viewpoints into account and that diverse individuals come to a shared understanding that can serve as the basis for integrated execution (Mohrman et al., 1995). Hence, this construct will involve conflict management, motivating and confidence building and affect management as its dimensions. At this point, it is necessary to emphasize the fact that taking team action and interpersonal processes together have been found to be important for the teams' performance (Mohrman et al., 1995).

Lastly, as this endeavor's focus is on teams, the outcome variable is expected to reflect results of teamwork. Hence, this discussion brings us to Team Effectiveness/Performance as the outcome variable. Team Effectiveness/Performance is defined by Hackman (1990) as a construct that has three dimensions: The extent to which the group's productive output meets the standards of quantity, quality and timeliness of people who receive, review and/or use that output, the degree to which the team enhances the capability of its members to work together interdependently in the future and the development and need satisfaction of the group's members. However, Mohrman et al. (1995) highlight that this construct is not a straight forward one as teams should be considered effective if they accomplish team goals without obstructing other

teams' objectives. Hence, with their recommendation, the extent to which a team performs effectively in terms of its own productive output and the extent to which it contributes to the effectiveness of the larger business unit of which it is a part (also noted by Goold and Campbell, 2002) will be considered as a component of this construct. For the purposes of this endeavor, this construct will be considered to be composed of two levels of different measures. Further, Mohrman et al. (1995) alert that a measure of individual performance would make less sense because performance is best measured at the level of team and/or business unit as this is where performance can best create key lateral processes. Hence, this academic study is seeking to find out how BPO and team processes relate to overall Team Effectiveness/Performance.

### Significance of the Study

Within the framework of the study, it is believed that BPO will provide organizations the sophistication that they crave in order to become more dynamic, flexible, adaptive and responsive. BPO has the potential to inject a holistic view of businesses to organizational members. That is a huge advantage for individuals that are not at the top management levels since they might be stuck with a fragmented view of business outcomes due to their specialized, task-oriented jobs. Until now, it was only the top layers of an organization that had the complete view of things. However, the marketplace has become a place where the relationships and ways of conducting business have become very intricate and complex. Hence, having the minority of top managers to possess the complete view of reality has begun to be insufficient. BPO is

very essential at every level of a given organization as it is supposed that organizations can make their customers even more content when they prove themselves to be capable of attending to problems at the very spot that they occur as well as having the capacity to swiftly update their offerings. Thus, BPO should become an integral part of any organization that seeks to get a full grasp of what is going on in the marketplace and craft a strategy accordingly.

At this point, teams come into the picture as useful tools especially for lateral coordination for organizations. Teams can accommodate individuals from different functions and backgrounds that are seeking to achieve a collective goal that would otherwise hardly come together within the functional mindset of hierarchical structures. Thus, teams involve multiple participants with various perspectives and expertise which will in turn pave the way for well-informed, well-rounded and integrative decisions. Teams provide organizations with the advanced flexibility and mobility they crave in this complex and uncertain business environment.

Accordingly, BPO seems to require teams as an organizational component since teams provide cross-functional, well-informed expertise and synergy that organizations crave today. Up to this point in the research, a gap in the literature concerning the issue about whether business processes and teams go hand in hand has been detected. In this academic endeavor, teams will be treated as tools that provide the bureaucratic organizations with the dynamism of their customers and enable them to come one step closer to being network structures. Currently, the lack of coordination among functions/processes can be observed within hierarchies. This eventually means loss of valuable resources and depriving customers from goods and/or services which they really might need and/or want. In order to prevent this, teams are considered to be

excellent mechanisms for coordinating these activities as well as seeing whether there are any overlaps. In addition, the introduction of teams will ensure that network structures do not become “out of control” (Kelly, 1995) as networks have no concrete beginning or end. Thus, teams will rationally balance the complex nature of the networks in order to adapt the hierarchical structures to the realities and requirements of the post-modern era.

What is more, as the members of teams might be coming from different functions and backgrounds, their coordination is important. The probability that one of them might get politicized is drastically reduced since others will act as a “checks and balances” mechanism. It must not be forgotten that teams have the biggest room for mitigating and linking the concerns of the customers and those of the organizations. Hence, their neutrality and foci is of utter importance; so, it is believed that teams will help members maintain their objectivity and motivation.

Given all these facts, it becomes evident that BPO and teams inevitably seem to be a match made in heaven. As hierarchic structures may hinder BPO due to specialization, chain of command, differentiation and formalization, teams prove themselves to be more flexible and adaptive in a case where customer requirements change. Therefore, this academic study seeks to inquire and find out whether there is a relationship between BPO and utilization of teams whilst investigating how teams carry out their tasks and handle interpersonal relationships from an organizational design perspective. Thus, the objective of this endeavor is to shed light on how far along the teams operating in Turkish organizations go in terms of achieving their goals, handling interpersonal relationships and have a significant place in effectiveness/performance both for themselves and their respective organizations. What is more, this undertaking

aims to shed light on how these relations reflect on team effectiveness/performance which eventually add up to the overall organizational effectiveness/performance.

In this study, the level of analysis will be the organizations themselves. It is thought that being oriented towards processes rather than tasks increases the probability that the organization in question may employ teams as an organizational design component. Thus, the primary research objective stems from this point which is to see whether this is really the case. What is more, this undertaking is also seeking to shed light on how teams actually function in order to carry out their duties as well as how they handle interpersonal relations. Essentially, this is a model that seeks to measure team effectiveness in team-based settings and is inclined to reveal the requirements for team effectiveness in Turkey whilst depicting the problems that may be present in utilization of teams in organizations.

It is supposed that, by applying this theoretical model to service firms in Turkey, this undertaking can also observe how far the private sector has taken steps on these subjects. It is apparent that Turkey is tenacious in the quest for becoming an integral part of the global community. Thus, having organizational configurations that are up to date, in tune with the current trends and realities is of utter importance and this study aims to inquire about what the current standing in Turkey is and what else can be done to improve the organizational structures via applying advanced design tools that are backed up with contemporary solutions.

## Theoretical Model

### Organizational Design Considerations

The reason why the importance of organizing and design is emphasized in this research is the fact that, although planned with the best efforts and intentions, most of the strategic and/or managerial endeavors carried out are without proper organizational design. According to Dalton et al. (1970), design of the basic structure involves how the components of a particular organization will be arranged and coordinated in order to accomplish organizational objectives. Still, the best way to organize is contingent upon the uncertainty and diversity of the basic task being performed (Galbraith, 1973: 4). Galbraith (1977: 36) continues by noting that the greater the task uncertainty the greater the information that must be processed among the decision-makers during task execution in order to achieve a given level of performance. Having seen the constantly changing and highly complex environment, it is supposed that teams provide a framework that translates the realities of the current business milieu into the organizations whilst addressing the requirements of the customers. It is also assumed that teams help build a flexible organizational structure. Flexible organizations can thus meet a growing range of peripheral changes in technology, competitor threats, customer demands and government requirements without excessive costs, undue delays, organizational disruptions and performance losses (Stohr and Zur Muehlen, 2008). Ultimately, Mohrman et al. (1998: 9) state that today's organizational design issues revolve around complex team structures.

In light of the reviewed literature, it has been encountered that, as Pettigrew et al. (2000) put it, hierarchy and scale has the capability to impede the strategic flexibility essential for enduring in increasingly competitive markets. What is more, the distribution of authority results in the configuration of power-centers within organizations. As these centers cannot be controlled at all times, the quality of their allocation and standardization becomes questionable. This in turn, unfortunately, reflects upon the interactions of the organizations with their environment (i.e. the consumers). It may therefore be expected that the organizations may fail to meet the demands of the customers and the relations may start to become less trouble-free.

Furthermore, functional interdependencies' importance requires being underlined at this point. By functional interdependency, the idea referred to is the function of every element of a system being mutually reliant on the functioning of other elements and the system as a whole. Interdependence basically enables the elements in a system to stick together while making them permeable enough to ensure communication flow. Hence, interdependencies are crucial in terms of making sure that there is smooth transition between different organizational processes. Connected to this fact, task interdependence is another concept to be touched upon. It is the degree to which group members must rely on one another to carry out their tasks successfully given the design of their jobs (Kiggundu, 1981). Thompson (1967) regards task interdependence being a feature of work that is intrinsic in the "technology" of the task. For example, in an assembly line, work is inherently sequentially interdependent. In other words, interdependencies enable work-flow mechanisms among organizational units. Theoretically, these work-flow mechanisms should produce synergy throughout the whole system. However, this cannot be possible without the right organizational design.

Accordingly, it is presumed that the interdependencies are not emphasized in hierarchical structures and inferred that this deficiency sets the reason behind the work-flow mechanisms that are negatively impacted. It must be kept in mind that processes cut across functions and organizing around processes has the potential to serve as a means for mitigating hierarchical barriers and overcoming its obstacle of underemphasized interdependencies. In the same vein, as organizational tools, teams present themselves as useful ones since they have the capacity to embrace functional interdependencies in contrast to hierarchies that usually cut through them. Foremost, teams integrate and enhance formal structures and processes by incorporating structural and functional boundaries to design and energize core processes (Katzenbach and Smith, 1993). Thus, teams provide room for coordinating central connections through interdependent processes and enabling people from various backgrounds to cooperate to achieve mutually aspired goals.

### Network Organizations

This discussion brings us to the main idea behind this endeavor which is mainly inspired from the writings of Kelly (1995) and Goldstein (1994) that adopt self-organization, bottom-up control, organic system types and network structures as their general themes. Primarily, Kelly (1995) believes that, we have reached a technological era in which organizations are attaining the complexity of living entities and where biology becomes the best metaphor for comprehending how to control our world. He says that assembling organizations in a biological manner is to use networks. Interdependence and “multidirectional interaction” (Goldstein, 1994) are at the heart of such a mechanism

where there is no imposed centralized control. Also, the subunits in the network system are autonomous but have a high connectivity among themselves at the same time. Such a system contains potentials not inherent in the sum of its parts (Goldstein, 1994). This connectivity results in an environment where peers influence peers and “co-control” each other. Such systems are adaptable, evolvable, resilient and boundless. On the other hand, they are non-optimal, non-controllable, non-predictable, non-understandable and non-immediate. As the plurality of divergent actors can remain coherent in a network, it is nearly synonymous with democracy. Therefore, ultimately, the researcher believes that such an outlook in approaching the world needs to be adopted by organizations regardless of their age, size and/or industry if they aim to endure in the highly complex and changing business milieu.

Kelly (1995) also supposes that complexity cannot be handled by centrally controlled organizations. Such organizations are unstable and inflexible as they chop complexity into modular units arranged in a hierarchy. Yet, they manage to become complex entities within themselves where there are vast impediments upon change and ultimately, evolution. To harbor their complexity, their control approach takes the form of external domination. However, in networks, information and authority travel from the bottom up, and from side to side. The interdependencies are defined in an organized but indirect way where actors rather than a centralized authority control each other in order to get to an outcome.

As a last point, Goldstein (1994) highlights that self-organization in the form of networks does not reduce the need for leaders. Kelly (1995) thinks accordingly as he notes that leadership becomes suggesting/pointing to a particular destination and envisioning or trying to anticipate the future and steering the organization. Also, the

organization still needs boundaries because they bind the power generated by self-organization and direct it in the direction of the purpose of the system (Goldstein, 1994). These boundaries must be firm enough to enclose the process of self-organization yet permeable enough to allow crucial exchange with the environment.

Therefore, this complexity we are talking about calls for horizontal organizations and decentralized systems. A structural design example to this could be network type organizations. It is indicated that such structures provide feasible grounds for team-work, process-oriented systems and empowerment. It is envisioned that the network type organizations have to be adopted more widely. It is true that the organizations must become flexible, dynamic and permeable if they are to keep up with the pace of change (Hammer, 1996).

In the case of competitive environment, when the organizations are centralized, a requirement for coordination nonetheless exists. Namely, the allocation and control of resources need to be coordinated well so that the organizational sub-units can perform efficiently. Therefore, it is now that the organizational designers are expected to consider the decentralized orientation of the organizations. The pressures of globalization appear coupled with competition over allocation of worldwide resources. Such an environment necessitates dynamic structures; for instance, networks that will energize the organizations. As mentioned previously, in this endeavor, teams are treated as tools that provide the bureaucratic organizations with the dynamism of their customers and enable them to come one step closer to being network structures. Teams are more flexible than larger organizational groupings because they can be quickly assembled, deployed, refocused and disbanded usually in ways that enhance rather than disrupt more permanent structures and processes (Katzenbach and Smith, 1993: 15). In

addition, the introduction of teams will ensure that network structures do not become “out of control” (Kelly, 1995) as networks have no concrete beginning or end. Thus, teams are regarded as reference points among complex organizational interdependencies and relationships. In other words, teams will rationally balance the complex nature of the networks in order to adapt the hierarchical structure to the realities and requirements of the contemporary ways of doing business. It is assumed that in organized structures, complexity is much more likely to be well-adjusted if mechanisms of checks and balances (i.e. teams) are dispersed throughout.

### Business Processes

As have been emphasized in the previous sections multiple times, the functional mindset projected on organizations is lagging behind the realities of the post-modern business milieu. Of course, this endeavor is ultimately suggesting a way to increase organizations’ customer centricity by steering clear of the constraints of managing by vertical functions (McAdam, 1996). Therefore, the solution seems to be thinking in terms of business processes presents itself as a feasible remedy in the face of these circumstances. According to Hammer (1996), thinking in terms of business processes provides a new analytic framework that aids crack the mould of thinking that is based only on functional units. This type of thinking will require employees and managers to think in terms of the system (i.e. the organization) they are operating within. Furthermore, they will be obliged to think about how the components of the system are connected to one another and how those components might be affected when something internal or external forces the system to change and/or adapt. The researcher is aware of

the fact that this type of approach might sound too idealistic and not achievable in everyday business life. It is not only impossible, but also not feasible to get into the business process frame of mind overnight. Foremost, as hierarchies are assumed as rigid structures, organizations are in need of finding a way to mitigate them, which will successfully ease the functional mindset into process thinking. Therefore, a tangible solution is deemed as the introduction of the team mechanism into the organizational structure to put business process thinking into perspective while serving as linkage instruments where different processes can be connected to one another. As processes need to cut through functional and/or departmental boundaries in order to achieve results, teams offer themselves as linking platforms where members from various functional backgrounds can have an opportunity to work together. Teams provide these employees to get to know each other in terms of different viewpoints which will bring members one step closer to understanding business processes. What is more, teams themselves will focus on individual roles and performance rather than hierarchies and managers (Katzenbach and Smith, 1993) which is also in line with the main outlook of BPO.

### Towards a Theoretical Model

Currently, the lack of coordination among functions/processes can be observed in hierarchies. This eventually means loss of valuable resources and depriving customers from services which they really might need. In order to prevent this, teams will be excellent mechanisms for coordinating these activities as well as seeing whether there are any overlaps in organizational resource allocation. Utilization of teams is also

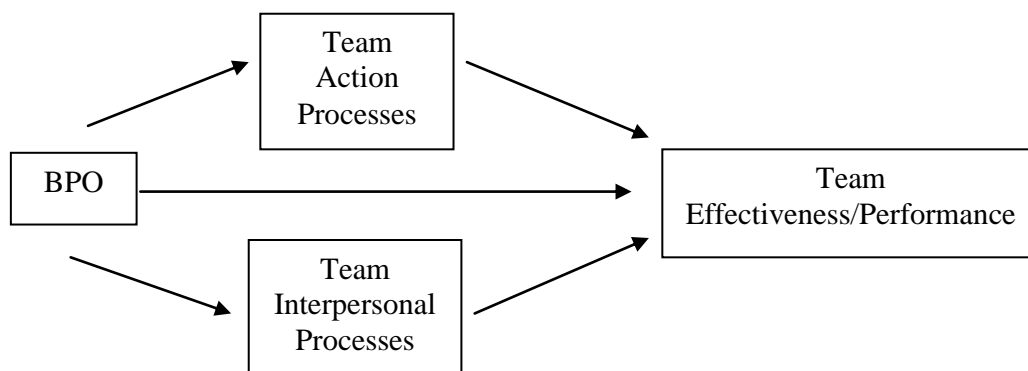
beneficial for feedback mechanisms. Often, these mechanisms lose their efficiency between many hierarchical levels and fail to deliver what was originally intended. Mostly, the original feedback gets lost in translation, loses its effect, content and meaning and therefore, is not taken into account. Thus, teams will also serve as a step that will refresh the message and even enrich feedback as it contains many different agents.

What is more, as the members of teams might be coming from different functions and backgrounds, their coordination is important. The probability that one of them might get politicized is drastically reduced since others will act as a “checks and balances” mechanism. This is considered as an important point since numerous individuals wind up being politicized instead of focusing on the greater good that they are working for, lose their hallmark and get caught up in the everyday struggles of political agenda. It must not be forgotten that teams have the biggest room for mitigating and linking the concerns of the customers and those of the organizations. Hence, their neutrality and foci is of utter importance; so, it is believed that teams will help them maintain their objectivity and motivation.

Lateral and vertical linkages will also be coordinated through the use of teams. Vertical linkages are used to coordinate activities between the top and bottom of an organization and are designed primarily for control of the organizations, whereas horizontal linkages refer to the amount of communication and coordination horizontally across organizational departments (Daft, 2004). Thus, through the utilization of teams, management will not be the only one coordinating the vertical and lateral linkages by itself. For example, teams can help the management in its efforts to do so as well.

In short, BPO seems to require teams as an organizational component as teams provide cross-functional, well-informed expertise and synergy that organizations crave today. Hence, the theoretical model that is proposed below is designed with this frame of thinking. It aims to shed light on how far along the teams in operating in Turkish organizations in terms of achieving their goals, handling interpersonal relationships and have a significant place in effectiveness/performance both for themselves and their respective organizations.

Figure 1. Theoretical Model



As can be seen, this model is designed within the viewpoint of McGrath's (1964) input, process, and output model. He explains that team inputs comprise of individual characteristics (e.g. individual task proficiencies, attitudes, personality resources, etc.) and team characteristics (e.g. cohesiveness, heterogeneity, etc.) whereas team process refers to the ways the team members interact over time, and the operating procedures the team adopts to convert its inputs into outputs. Hence, in this model, BPO is being treated as an input (i.e. member attitude) while Action Processes and Interpersonal Processes aim to shed light on how team members cooperate as a process

itself while working together. Finally, the output is the teams' overall effectiveness and performance.

### Hypothesized Relationships

By diffusing control and power throughout the system, the team-based organization is an important step towards the democratization of businesses' administrative milieu. As an organizational design component, teams seem to enable organizations to break their functional mindset and become more oriented towards their core processes that create value for their customers. Also as another important implication, teams facilitate different members of the organizations with different agendas to come together on a common ground, which helps to balance out the interests between different processes and functions. These members find ways to set examples for each other and this creates a checks and balances system throughout the organizations which also encompasses the top management. This sense of cohesion and democracy will inevitably reflect on the organizational climate. Thus, it is expected that the use of teams will create stability as every actor will have learned to trust each other.

As BPO has not yet been introduced to the model as an antecedent to team processes and/or team performance, still evidence can be found in the literature that this view leaves room for the employment of teams in organizations. It is one of the main triggers behind this academic study to see whether this is really the case. For the most part, in settings where work is either highly-interdependent or rapidly changing, there is a compelling argument for the basic work unit being a "work team" rather than the

individual (Galbraith *et al*, 1993). In the first place, performing effectively in such environments is far beyond the capacity of hierarchies and as has been mentioned several times, requires process view in order to stay relevant in the market. For instance, Lawler III (1994) talks about assigning teams the responsibility for the performance of a particular work process or for dealing with a particular set of customers. He continues by saying that a work team can be structured around a production process, service process, or a customer base, given the latitude and responsibility for a particular area. This also allows a skill-based approach to employees and tasks to be completed. As Lawler III (1994) puts it, within the team the members need to be developed so that they can contribute critical capabilities to the team. This notion is very closely related to professionalism that is at the core of BPO that again validates the logic of BPO being an antecedent to team performance and effectiveness. Further, Kasl *et al*. (1997) talks about how corporations are looking for ways to improve the effectiveness of teams. As pointed out many times, BPO could provide a way to do so and thus, it is plausible to think that this proposed relationship could be true. Hence;

H1: Business Process Orientation will positively predict Team Action Processes.

H2: Business Process Orientation will positively predict Interpersonal Processes in teams.

H3: Business Process Orientation will positively predict Team Effectiveness/  
Performance.

Before commenting about the antecedent – outcome relationship between team processes and team effectiveness and performance, it is essential to make an overview of

what other constructs have been investigated as predictors of team processes in order to put the necessary aspects into perspective. Antoni and Hertal (2009) underscore that among probable group processes, team communication, within-team cooperation, intrateam conflict and the amount of effort and the coordination of effort that members apply to a task, together with the use and development of task performance strategies and of members' knowledge and skills (e.g., Hackman, 1987) are important elements of team interaction. They also recall team reflexivity, team climate, group cohesion, group potency and efficacy, shared mental models, and group emotional tone have been proposed as both mediating and process variables (West et al., 1998).

Antoni and Hertal (2009) note that most well-known input variables for team processes and team effectiveness are features of the team design, such as task structure, group norms, and group composition, and aspects of the organizational context of teams, such as rewards and incentives, training, information systems, as well as leadership or management control itself (Cohen & Bailey, 1997; Gladstein, 1984; Hackman, 1987; Tannenbaum, Beard, & Salas, 1992; West, Borril, & Unsworth, 1998). So as to see other antecedents to team performance and/or team effectiveness, the following examples from the literature can be provided: Age, sex, race, personality, values and attitudes (Emmerik and Brenninkmeijer, 2009); group social capital (Bliese and Castro, 2000; Emmerik and Brenninkmeijer, 2009); team communication (Ancona and Cladwell, 1992); team goal commitment (Aubé and Rousseau, 2005); group personality, task focus and shared exchange (Bond and Wing-Chun Ng, 2004); work team characteristics (Campion, Medsker and Higgs, 1993; Campion et al., 1996); transactive memory (Austin, 2003); cohesion (Beal et al., 2003; Chiocchio and Essiembre, 2009); team reflexivity (Carter and West, 1998); group task design, encouraging supervisor

behaviors, group characteristics, employee involvement (Cohen et al., 1996); relationship conflict and task conflict (De Dreu and Weingart, 2005; Konradt et al., 2009); team climate and team innovation (West and Anderson, 1996; Bain et al., 2001) autonomy and external knowledge (Haas, 2010); coordination, project commitment, teamwork quality (Hoegl et al., 2004); shared mental models and team commitment (Kang et al., 2006); goal setting, interpersonal relations, problem-solving and role clarification (Klein et al., 2009); organizational citizenship behavior (Nielsen et al., 2009); ability, disposition, team member heterogeneity, team type, team task, autonomy and leadership type (Stewart, 2006); interdependence, team self-leadership, intrateam processes and task type (Stewart and Barrick; 2000); and group-level helping (Yee Ng and Van Dyne, 2005).

Having seen the variety of antecedents to team processes as well as team effectiveness and/or performance, it is time to turn to the evidence in literature about the relationship between team processes and team effectiveness and/or performance.

Hackman and Morris (1975) contend that the secret to comprehending what goes on in effective groups lies in the process of the group, whereas Hirokawa and Salazar (1991) conceive that a thorough analysis and understanding of group processes offers insight to why groups make high-quality decisions. LePine et al. (2008) also contend that teamwork processes are positively related to team effectiveness criteria. Some of the research studies that confirm a positive relationship between internal team processes and performance measures have been conducted by Gladstein (1984), Campion et al. (1996), Kuipers (2005) and Kuipers & Stoker (2009).

As for the constructs of team processes to be employed in this undertaking, several researchers found compelling evidence that Marks et al.'s (2001) Transition

Processes, Action Processes and Interpersonal Processes are indeed predictive of team performance in different contexts. Foremost, there is the research of Marks et al. (2005) who came up with these constructs. They found a positive relationship of Transition Processes, within-team Action Processes and cross-team Action processes in predicting multi-team performance. Then, Mathieu and Shulze's (2006) study confirmed a positive relationship between team knowledge, formal plans, Transition Processes, Interpersonal Processes and team performance. Mathieu, Gilson and Ruddy (2006) observed the positive relationship between team empowerment, team processes and team performance. Last but not least, Zhou and Wang's (2010) endeavor also uncovers a relationship of shared mental models of taskwork and teamwork coupled with Transition Processes and Action Processes in forecasting team performance. Having these examples at hand, the following are the derived hypotheses:

H4: Team Action Processes will positively predict Team Effectiveness/Performance.

H5: Interpersonal Processes in teams will positively predict Team Effectiveness/Performance.

Following this discussion on the hypothesized relationships for BPO, Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance, the next chapter will present the research design and methodology employed for this study.

## CHAPTER SIX

### RESEARCH DESIGN AND METHODOLOGY

#### Research Objectives

It is thought that being oriented towards processes rather than tasks increases the probability that the organization in question may employ teams as an organizational design component. Thus, the primary research objective stems from this point, which is to see whether this is really the case. In particular, this undertaking is also seeking to shed light on how teams actually function in order to carry out their duties as well as how they handle interpersonal relations. Thus, investigating the extent to which members understand and manage their interdependence during goal attainment is another research question to be addressed. Essentially, this is a model designed to measure team effectiveness stemming from BPO and healthy team processes in team-based settings, and it tends to reveal the requirements for team effectiveness in Turkey whilst depicting the problems that may be present in the utilization of teams in organizations.

The empirical investigation conducted by this study is exclusively intended for the elucidation of the following research questions:

1. Does BPO have a positive effect on Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance?
2. Do Team Action Processes predict Team Effectiveness/Performance?
3. Do Interpersonal Processes predict Team Effectiveness/Performance?
4. Are there any differences in the predictive powers of BPO, Team Action Processes and Interpersonal Processes?
5. Do Team Action Processes and Interpersonal Processes mediate the relationship between BPO and Team Effectiveness/Performance?
6. If Team Action Processes and Interpersonal Processes do mediate the relationship between BPO and Team Effectiveness/Performance, how is this depicted?
7. Are the views of team managers congruent with the views of the team members in terms of the proposed relationships between BPO, Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance?

However, it must be noted that this investigation will be carried out with an organizational theory, structure and design point of view and not with an organizational behavior approach which is beyond the scope of this research project. In this endeavor, the level of analysis will be the teams and ultimately organizations since their main building component is assumed to be teams.

## Research Design

In this academic undertaking, the examination of the hypothesized associations among BPO, Team Action Processes, Interpersonal Processes and Team Effectiveness / Performance is accomplished through conducting a quantitative study that included the administration of a survey. This study is comprised of a pilot study followed by the main study both of which were performed with a cross-sectional design where there was a single time of data collection for each respondent. In the next part, the quantitative study will be exhibited with its relevant sampling, data collection, measurement and data analysis sections.

### Quantitative Research

#### Sampling and Data Collection

Service firms as an industry are chosen for the empirical application of the theoretical model that has been proposed in this study. The primary reason why service firms are selected is the fact that a service firm deals with information and intangible outputs (Daft, 2004). As the employees are required to work in direct contact with their customers, they need enough knowledge and awareness, social and interpersonal skills as well as technical skills in order to handle them properly (Daft, 2004). He also observes that decision making in service organizations often tends to be decentralized, there is a low level of formalization in addition to more freedom and discretion on the job. Coming from this stream of thought, it is foreseen that such firms might have better

grounds to accommodate teams and provide an environment for them to flourish when compared to production firms.

What is more, service firms are supposed to be more open to change. This is because they have a better chance to be well-versed about changing trends and customer habits from the first hand – that is the customers themselves. Further, service firms deal with non-routine work which is emergent, varied, unique, interdependent, uncertain and dynamic when compared to the routine work environments of production firms that are programmed, analyzable, well understood, static and that include repeated patterns (Mohrman et al., 1995). Service firms are considered more flexible compared to production firms as it is deemed to take less time to update, refine and/or design a service package than it may take to do so an entire production line.

It is supposed that Turkey is very relevant in this sense. Although the Turkish marketplace is considered emerging, it attracts fierce competition from developed and newly rising economies in most of its sectors. That's why the Turkish businesses face the need to become more efficient in order to overcome the existing deficiencies in the market mechanisms whilst meeting the demands rising from competition and customer requirements.

Taking the previous research conducted on teams into consideration, 750 companies that are known to provide services are arbitrarily selected from lists of The Turkish Industrialists and Businessmen's Association (TÜSİAD), available membership lists of chambers of commerce of major cities in Turkey (i.e. İstanbul, İzmir, Ankara, Bursa, Kocaeli, Antalya) and The International Investors Association (YASED). The selection process consisted of simple random sampling where each firm in those lists has the equal chance of being selected. The firms in the sampling frame were contacted via

telephone and/or e-mail, and the subject of the study was communicated. Then, filters were administered to ensure that the firms fit the criteria of the study. The first filter was the number of employees in a given firm. The study requires that the firms have at least 10 employees. Otherwise, the firms would be so small that every the whole company becomes somewhat of a team. The second filter was administered to ensure that the firms were in the service sector. It asked them their line of work and industry. In the third filter, the firms are given a description of a team and are asked to see whether they fit this depiction. The definition is as follows: “A team is formed when a group of people work to produce goods and/or services that they are mutually accountable for. The team members are interdependent in achieving their goals while the outcomes they produce is determined by the interactions among them. In an organization, teams can be formed by employees that work in different departments. Also, team(s) can exist in a particular department in an organization. If the teams in the contacted firms fit this description, they could go on with the study. The last filter is about the respondent’s role in the company. The study requires that the respondent to be either a team member or a team manager. As a result, 149 firms agreed to participate in the study. Hence, the response rate turned out to be 19.8 %.

For the administration of the study instrument, interviewers were trained about the BPO principles and team features. This was done to make sure that interviewers could clarify any misunderstanding on the part of the respondents whenever they needed. Then the trained interviewers visited each of the participating 149 firms and interviewed 1 or 2 (if available) team members along with 1 team manager face-to-face using structured questionnaires which gave way to a total of 368 observations. All of the participants are middle-level employees; none of them are junior-level or have top-level

managerial responsibilities. The reason why middle-level employees were chosen as respondents was the fact that new employees to a particular firm may have not yet adjusted to and/or know the working system to a full extent. As for the top-level employees, their managerial duties automatically grant them the access to the big picture of the company they work for which in turn would make their responses biased in the positive sense (i.e. they would inherently have and/or understand process view and how process thinking might relate to team processes and team effectiveness/performance). The respondents answered questions related to firm characteristics and individual demographics, BPO, Team Action Processes, Interpersonal Processes and Team Efficiency/Performance indicators.

In the total sample, the respondents are on the average 32.6 years old, ranging from 18 to 63 (standard deviation = 8.9) and 73.4 percent of the respondents are male. Eight percent are primary, 15 percent are middle school and 22 percent are high school graduates, 51 percent hold university undergraduate degrees, and 5 percent hold higher-level degrees. The participants have an organizational tenure of 5.7 years on the average, ranging from 1 to 40 years (standard deviation = 5.7). Their average total full-time working experience is 12.2 years and ranges from 1 to 48 years (mean = 12.2; standard deviation = 9.1). The participating 149 firms provide a wide range of services, including tourism, hotels, restaurants, cafés, distribution, transportation, contracting, security, market research and data analysis, interior design, insurance, media, IT, telecommunications, trading services, marine services, advertising, printing, education, logistics, catering, cleaning, banking, health, law services, professional consulting and retail sales services such as jewelry, food, textile, furniture, cosmetics, souvenirs, printed materials. The average team size is 23.3, ranging from 2 to 261 (standard deviation =

35.9) and 57.1 percent of the respondents are team members whereas the remaining 42.9 percent are team managers. The average firm size is 57.6 and ranges from 8 to 1500 employees (standard deviation = 150.7).

Table 3. Sample Characteristics

	Number	Percentage
Age (n=368)		
<25	60	16.3
25-31	137	37.2
32-38	89	24.2
39-45	49	13.3
>45	33	9.0
Gender (n=368)		
Female	98	26.6
Male	270	73.4
Education Level (n=368)		
Primary School	30	8.2
Middle School	45	12.2
High School	82	22.2
University	190	51.6
Graduate Degree	21	5.7
Organizational Tenure (n=368)		
2-5 years	240	65.2
6-10 years	79	21.5
11-15 years	25	6.8
>15 years	24	6.5
Full-Time Work Experience (n=368)		
2-5 years	92	25.0
6-10 years	104	28.3
11-15 years	77	20.9

Table 3. continued

	Number	Percentage
>15 years	95	25.8
Team Size (n=368)		
2-25	295	80.2
26-50	35	9.5
51-75	20	5.4
75-100	8	2.2
>100	10	2.7
Firm Size (n=368)		
<25	201	54.6
25-100	129	35.1
101-250	22	6.0
251-500	9	2.4
501-1500	7	1.9

Following the data collection phase, measurement scales were purified for subsequent hypothesis testing. In the consequent section, measures that were employed in the study are presented in their original formats prior to the exclusion of redundant and irrelevant items for the sample at hand.

### Measures

#### Business Process Orientation (BPO)

For this construct, the 32-item survey instrument provided by Spanyi (2006) is thought to be appropriate for the point of view of this research. He developed this particular instrument via his consultancy work. Although there is no academic endeavor that has

utilized this particular instrument so far, it is supposed that this scale is still justifiable for this particular research. The reason is the fact that this instrument has been constructed in guidance of the firms that do business the marketplace as do the firms that are surveyed for this undertaking and it is deemed that this particular instrument will do a good job in getting a sense of reality. What is more, this instrument is unique in the field of management as this is the only scale that directly measures the BPO construct.

Another reason for choosing this particular instrument is the fact that, there is a gap in the literature in terms of empirical studies that include BPO with an organizational design orientation. Most of the literature that has been reviewed is found to have treated this construct with directions provided from other disciplines such as operations and production management, information technology, cybernetics, computer engineering, quality management and so forth. Hence, the instruments used in those endeavors were not compatible with the objectives of the proposed theoretical model. Furthermore, there is no other scale available for this construct and thus, the scale at hand was the researcher's only choice.

In the present study, BPO is being measured by using Spanyi's (2006) scale. One item ("Process terms such as input, output, process and process owners are used in conversation in the organization") was not included in the survey because it was about business process jargon, and the researcher is yet to find out about the extent of process thinking in companies. Thus, it was not found in line with the purposes of the study. The respondents rated the propositions over a 6-point rating scale (1= strongly disagree; 6 = strongly agree). In the Turkish version of the instrument, the clauses were provided in the sense that pointed towards the integration of the employee to its organization (e.g. "The average employee in *our company* as a series of linked processes."). Also, each

time the word process comes up in a statement, a brief Turkish explanation was provided in parentheses to provide clarity to the respondent.

In Table 4, the items in Spanyi's (2006) BPO measure that was used in the study to determine a person's perception of the ongoing processes in her/his organization can be seen.

Table 4. Business Process Orientation Instrument (Spanyi, 2006)

Statement	Factor
1. The average employee views the business as a series of linked processes.	Process View
2. Process terms such as input, output, process and process owners are used in conversation in the organization.	Process View
3. The business processes are sufficiently defined so that most people in the organization know how they work.	Process View
4. Jobs are usually multidimensional and not just simple tasks.	Process Jobs
5. Jobs include frequent problem solving.	Process Jobs
6. People are constantly learning new things on the job.	Process Jobs
7. Process performance is measured in your organization.	Process Management and Measurement Systems
8. Process measurements are defined.	Process Management and Measurement Systems
9. Resources are allocated based on process.	Process Management and Measurement Systems
10. Specific process performance goals are in phase.	Process Management and Measurement Systems
11. Process outcomes are measured.	Process Management and Measurement Systems
12. Most departments in this business get along well with each other.	Interdepartmental Conflict
13. When members of several departments get together, tensions frequently run high.	Interdepartmental Conflict
14. People in one department generally dislike interacting with those from other departments.	Interdepartmental Conflict
15. Employees from different departments feel that the goals of their respective departments are in harmony with each other.	Interdepartmental Conflict
16. Protecting one's departmental turf is considered to be a way of life in this business unit.	Interdepartmental Conflict
17. The objectives pursued by the marketing department are incompatible with those of the manufacturing department.	Interdepartmental Conflict

Table 4. continued

Statement	Factor
18. There is little or no interdepartmental conflict in this business unit.	Interdepartmental Conflict
19. In this business unit, it is easy to talk with virtually anyone you need to, regardless of rank or position.	Interdepartmental Correctedness
20. There is ample opportunity for informal “hall talk” among individuals from different departments in this business unit.	Interdepartmental Correctedness
21. In this business unit, employees from different departments feel comfortable calling each other when the need arises.	Interdepartmental Correctedness
22. Managers here discourage employees from discussing work-related matters with those who are not their immediate superiors and subordinates.	Interdepartmental Correctedness
23. People around here are quite accessible to those in other departments.	Interdepartmental Correctedness
24. Communications from one department to another are expected to be routed through “proper channels”	Interdepartmental Correctedness
25. Junior managers in my department can easily schedule meetings with junior managers in other departments.	Interdepartmental Correctedness
26. People in this business unit are genuinely concerned about the needs and problems of each other.	Measures of Esprit de Corps
27. A team spirit pervades all ranks in this business unit.	Measures of Esprit de Corps
28. Working for this business unit is like being a part of a family.	Measures of Esprit de Corps
29. People in this business unit feel emotionally attached to each other.	Measures of Esprit de Corps
30. People in this business unit feel like they are “in it together”.	Measures of Esprit de Corps
31. This business unit lacks an “esprit de corps”.	Measures of Esprit de Corps
32. People in this business unit view themselves as independent individuals who have to tolerate others around them.	Measures of Esprit de Corps

## Team Action Processes and Interpersonal Processes

The constructs will be measured by scales that were developed by Marks, Mathieu and Zaccaro (2001). At this point it is necessary to note that the Transition Processes will be left out since the proposed theoretical model of this study is interested in what teams are doing (i.e. Action Processes) and how they handle relations among their members (i.e. Interpersonal Processes) rather than assessing how teams evaluate their own tasks and environments (i.e Transition Processes). In other words, the model is only concerned with what teams do and how they deal with interpersonal interactions.

In this current study, Team Action Processes and Interpersonal Processes were measured by Marks et al.'s (2001) scale and the respondents rated the propositions over a 6-point rating scale (1= never; 6 = always). In the Turkish version, the statements were revised to include the phrase "our team" in each item to point towards a feeling of unity (e.g. "In our team, we regularly monitor how well we are meeting our team goals."). Further, the word team has two different Turkish translations; so, each time the word team came up, both Turkish words were provided to address the respondents' respective jargons.

Tables 5 and 6 show the items in Marks et al.'s (2001) Team Action Processes scale and Interpersonal Processes scale. Team Action Processes measure has 20 statements whereas Interpersonal Processes measure has 15 statements.

Table 5. Team Action Processes Scale (Marks et al., 2001)

Statement	Factor
1. Regularly monitor how well we are meeting our team goals?	Monitoring Progress Toward Goals
2. Use clearly defined metrics to assess our progress?	Monitoring Progress Toward Goals
3. Seek timely feedback from stakeholders (e.g. customers, top management, other organizational units) about how well we are meeting our goals?	Monitoring Progress Toward Goals
4. Know whether we are on pace for meeting our goals?	Monitoring Progress Toward Goals
5. Let team members know when we have accomplished our goals?	Monitoring Progress Toward Goals
6. Monitor and manage our resources (e.g., financial, equipment, etc.)?	Resource and Systems Monitoring
7. Monitor important aspects of our work environment (e.g. inventories, equipment and process operations, information flows)?	Resource and Systems Monitoring
8. Monitor events and conditions outside the team that influence our operations?	Resource and Systems Monitoring
9. Ensure the team has access to the right information to perform well?	Resource and Systems Monitoring
10. Manage our personnel resources?	Resource and Systems Monitoring
11. Develop standards for acceptable team member performance?	Team Monitoring and Backup
12. Balance the workload among our team members?	Team Monitoring and Backup
13. Assist each other when help is needed?	Team Monitoring and Backup
14. Inform team members if their work does not meet standards?	Team Monitoring and Backup
15. Seek to understand each other's strengths and weaknesses?	Team Monitoring and Backup
16. Communicate well with each other?	Coordination
17. Smoothly integrate our work efforts?	Coordination
18. Coordinate our activities with one another?	Coordination
19. Re-establish coordination when things go wrong?	Coordination
20. Have work products ready when others need them?	Coordination

Table 6. Interpersonal Processes Scale (Marks et al. 2001)

Item	Factor
1. Deal with personal conflicts in fair and equitable ways?	Conflict Management
2. Show respect for one another?	Conflict Management
3. Maintain group harmony?	Conflict Management
4. Work hard to minimize dysfunctional conflict among members?	Conflict Management
5. Encourage healthy debate and exchange of ideas?	Conflict Management Motivating & Confidence Building
6. Take pride in our accomplishments?	Motivating & Confidence Building
7. Develop confidence in our team's ability to perform well?	Motivating & Confidence Building
8. Encourage each other to perform our very best?	Motivating & Confidence Building
9. Stay motivated, even when things are difficult?	Motivating & Confidence Building
10. Reward performance achievement among team members?	Motivating & Confidence Building
11. Share a sense of togetherness and cohesion?	Affect Management
12. Manage stress?	Affect Management
13. Keep a good emotional balance in the team?	Affect Management
14. Keep each other from getting overly emotional or frustrated?	Affect Management
15. Maintain positive work attitudes?	Affect Management

#### Team Effectiveness / Performance

As is mentioned, this construct is measured in two levels in order to provide more insight. Mohrman et al. (1995) note that team performance is not a straightforward matter of whether a team accomplishes its objectives or not. For instance, a team could be reaching its objectives but it could be doing so at the expense of other teams and this will therefore need to be acknowledged and investigated separately. To better illustrate this, a composite measure is thought of. The first level will consist of two items (Mohrman et al., 1995):

- The extent to which team performs effectively in terms of its own productive output. This item will be called *effective performance* from here on for the model of this study.

- The extent to which the team contributes to the effectiveness of the larger business unit of which it is a part (also noted by Goold and Campbell, 2002). This item will be called *contribution to larger business unit* from here on for the model of this study.

At this point, it must be noted that Mohrman et al. (1995) draw attention to the fact that it may not make sense to focus on and measure individual performance in team-based environments. Hence, they underline that it might be a better idea to measure performance at the level of the team and the business unit which it is a part of because this is where performance can best create key lateral processes. A similar notion is referred to by Ancona and Chong (1999) which they name *entrainment*, where teams are expected to temporally align their efforts with those of other systems which they are tightly coupled. What is more, Goold and Campbell (2002) underline the fact that all units must collaborate to realize the goals of the larger, upper unit of which they are a part. Hence, the first level of the composite measure is chosen as shown above.

The second level includes Hackman's (1990) group effectiveness dimensions. He defines group effectiveness as consisting of three dimensions:

- The extent to which the group's productive output meets the standards of quantity, quality and timeliness of people who receive, review and/or use that output. This dimension will be called *team performance* (Mohrman et al., 1995).
- The degree to which the team enhances the capability of members to work together interdependently in the future. This dimension will be called *learning and improvements* (Mohrman et al., 1995).

- The development and need satisfaction of the group's members. This dimension will be called *satisfaction* (Mohrman et al., 1995).

In the survey, the mentioned items are being used exactly in the way they were presented here except for the team performance item. This item was divided into 3 different questions. The first one investigates quantity, the second one looks into quality and the last one examines timeliness of the team's output. Hence, this measure became a 7-item one. These items are measured with a 6-point rating scale (1= never; 6 = always). Again, in the Turkish version, the statements were written with a "we" tone to point towards team unity (e.g. "Our team works effectively in terms of our own productive output.").

As the original surveys were in English, the items were translated and back translated to make sure that the meaning of the items were communicated properly. Please refer to Appendix A for the English version of the survey and Appendix B for the Turkish version.

## CHAPTER SEVEN

### RESULTS

#### Results of the Pilot Study

To test the constructed survey, firstly, a pilot study was carried out to see whether the questions were understood properly by the respondents. The pilot survey had a total of 71 questions and took about 15 – 20 minutes to complete. It was administered to 59 respondents who were selected by convenience sampling. The respondents that completed the survey are working or have worked in the service industry. Twenty five (42%) of the respondents were male whereas 34 (58%) of the respondents were female. The average age for the respondents was 33.4, ranging from 23 to 69 (standard deviation = 9.3). Their dispersion of their education level is as follows: 1.6% of the respondents were high-school graduates, 44.3% of the respondents were university graduates, 35.5% of the respondents have Master's degrees whereas those who hold a PhD degree were 18.6%. The average size of the teams that the respondents work is 10.2 ranging from 2 to 60 (standard deviation=11.6). Their average full-time experience in their current company is 5.9 years (standard deviation=8.3) while their average total professional

experience is 9.5 (standard deviation=8.8) Both of these measures range from 1 to 40 years. Examples to the positions in their company are high and low-level manager, teacher, PhD student, assistant, consultant, specialist, team leader, and analyst.

Of the 59 cases in the data set, only four had a significant amount of unanswered questions. Thus, the statistical analyses were conducted with 55 cases. With the data set at hand, exploratory factor analyses were conducted. As the sample size in the pilot study is not adequate for a meaningful outcome, the factor analyses were conducted only to see which questions did not load well to the factors extracted. The reliability analyses of the measurement scales indicated high alpha values even with the small sample at hand. The alpha for BPO was .73; .95 for Team Action Processes, .96 for Interpersonal Processes and .88 for Team Efficiency/Performance which all fulfill Hair et al.'s (2010) .70 requirement.

This assessment helped to understand how the questions were perceived by the respondents. Those questions with bad loadings that indicated the respondents' difficulty in understanding the questions or the placement of the questions were not selected for the benefit of the respondents. What is more, such questions may not be relevant for the respondent. One observation reported by some of respondents was concerned about understanding difficulties due to the wording of some items. Another issue was the items concerning interdepartmental conflict factor of BPO. When these items were included in the analysis as a part of BPO, they had a ruining effect on the loadings of other items. After these items were taken out of the analysis, a significant improvement in the factor loadings of items could be observed. The researcher thinks that some of the reactions could mainly be due to two reasons: First, the participants' responses could be suffering

from social desirability bias where respondents reply in a way that the answers will be socially pleasing and/or the answers will be viewed as acceptable by others. The second reason could be the fact that the organizations that the respondents work for have such structures that cross-functional relationships are not defined well and/or the job designs do not allow the employees or members of teams to interact with others from different departments. Hence, considering the problems reported by the respondents in completing the survey and the results of the factor analysis, the survey's design was updated and some questions were paraphrased. Other than these minor setbacks, participants found the survey to be easy to complete.

In order to see how the constructs in this pilot study were related, a regression analysis was conducted. The analysis was conducted with SPSS 19.0 with the data set of 55 cases. The dependent variable was Team Efficiency/Performance whereas the independent variables were BPO, Action Processes and Interpersonal Processes. "Enter" method was chosen which enters all the variables into the model at the same time. Here, it is necessary to note that Team Efficiency/Performance was observed to have quite high and significant correlations with BPO, Action Processes and Interpersonal Processes which proves that the relationship between the variables is indeed observable. The resulting  $R^2$  is significant ( $R^2=.43$ ;  $F_{(3;361)} = 92.08$ ,  $p < 0.001$ ). As a result, overall, the regression analysis demonstrated that BPO, Action Processes and Interpersonal Processes in fact predict Team Efficiency/Performance. Seeing this establishes that this endeavor made a valid ascertainment in bringing these constructs together and the road for further investigation is opened.

## Reliability Checks with Actual Sample

The data collected from 368 team members and managers was used to check the reliability of the constructs. This was done by examining the Cronbach's Alpha values. The only construct with items deleted to improve its reliability was BPO. Those items were identified by the "Alpha if item deleted" column of the SPSS output of BPO's scale reliability analysis. A total of 2 items were deleted. The initial Alpha for BPO was .80.6. After the items were deleted, the scale reliability went up to .87.6 which is above Hair et al.'s (2010) .70 requirement. The 2 items deleted were:

- People in this business unit are genuinely concerned about the needs and problems of each other.
- When members of several departments get together, tensions frequently run high.

As for Action Processes, the preliminary  $\alpha$  was .93.6 while the original  $\alpha$  for Interpersonal Processes was .93.3; both of which fulfill Hair et al.'s (2010) .70 requirement. Last but not least, Team Efficiency and Performance's  $\alpha$  was .82.9 which also satisfies Hair et al.'s (2010) .70 requirement as well.

For the upcoming structural equation modeling (SEM) analysis, the scores of the *respondents who work for teams* will be aggregated to team level, because the level of analysis is the team as the main building block of the organizations. To see whether aggregation is appropriate, intra-class correlations (ICCs) must be looked into. The ICC values to be reported are calculated by two-way random model since the respondents were chosen from a larger pool and the same subset of respondents answered questions

to rate the same constructs (Shrout and Fliese, 1979). The following table provides the ICC values of each construct for Single Measure ICC (for the reliability of individual raters) and Average Measure ICC (for the reliability of the mean of the ratings). Seeing that all the values are statistically significant, it is safe to say that the scores for the respondents who work for teams can be aggregated.

Table 7. Intra-Class Correlation Values of the Constructs

		ICC Values	
1	BPO	Single Measure ICC	.143***
		Average Measure ICC	.454***
2	Action Processes	Single Measure ICC	.747***
		Average Measure ICC	.855***
3	Interpersonal Processes	Single Measure ICC	.630***
		Average Measure ICC	.773***
3	Team Efficiency and Performance	Single Measure ICC	.597***
		Average Measure ICC	.748***
*** p<0.01			

The resulting Cronbach’s Alpha values and the items used in the survey are provided in Appendix C to see all “Reliability Statistics for the Constructs in the Study”.

### Factor Analyzes

Before performing a confirmatory factor analysis to assess the psychometric properties of the constructs and then hypothesis testing with SEM, exploratory factor analyzes were conducted for all of the constructs used in the study. As a preliminary assessment of the

data at hand, the constructs are tested for their normality. For this requirement, the statistical value (z) for skewness and kurtosis as well as the significance levels of Kolmogorov-Smirnov test of normality (please refer to Appendix D for the relevant (z) and significance values for the assessment of normality) were examined. It is observed that none of the constructs are normally distributed. However, BPO fulfills normality condition in terms of its z values for its skewness and kurtosis since they both are lower than the critical value of 1.96 ( $p < .05$ ). Considering the results of the Kolmogorov-Smirnov test, transformations including logarithm, inverse, square root, logit and inverse do not improve normality for any of the constructs.

As for linearity, foremost, the variables are correlated with their standardized values. All the bivariate correlations were significant at the .001 level which is an indicator of linearity. Following this, the null plot of residuals were examined (please refer to Appendix E for the null plot of residuals). The x-axis is constituted by the standardized predicted values for the dependent variable and y-axis is represented by the studentized residuals; and, the null plot exhibits a linear relationship between BPO, Team Action Processes, Interpersonal Processes and Team Efficiency/Performance. The linearity in this relationship is understood by seeing that the residuals are randomly distributed with relatively equal dispersion around zero and there is no strong tendency to be either greater or less than zero (Hair et al., 2010).

Another assumption of multivariate data analysis is homoscedasticity which checked with Levene test of equality of variances where differences of metric variables are compared across nonmetric variables (Hair et al., 2010). To test homoscedasticity, being a member in or a manager of a team was selected as the grouping variable. As

provided in the following table, F statistics are nonsignificant ( $p > .05$ ) for all constructs, representing that heteroscedasticity is not an issue for the constructs in this study.

Table 8. Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
BPO	1,314	1	366	,252
ActionProcesses	1,681	1	364	,196
InterpersonalProcesses	3,170	1	364	,076
TeamEfficiencyPerformance	1,451	1	365	,229

Last but not least, multicollinearity as an assumption is looked into to ensure that the independent variables are not correlated. The independent variables are regressed on Team Efficiency/Performance, then, tolerance and variance inflation factor (VIF), both of which are collinearity statistics, are examined<sup>1</sup>. Tolerance values for every independent variable are lower than the threshold of .90 which might be due to the conceptual proximity between Team Action Processes and Interpersonal Processes, because working relationships might be hard to distinguish from personal relationships. As for BPO's low tolerance values, the measurement scale includes questions about interpersonal and interdepartmental relations which might be correlated to the interpersonal relationship aspects of Team Action Processes and Interpersonal Processes. This can be observed by checking the low tolerance values of both constructs. On the other hand, VIF values are quite smaller than the cut off value of .10 (Hair et al., 2010) for all constructs. Further, the condition index, which depicts the multicollinearity problem in the overall model, is below the cutoff value of 30 (Belsey, Kuh and Welsch,

<sup>1</sup> Tolerance value indicates the percent of variance in the predictor that cannot be accounted for by the other predictors. Variance inflation factor points to the effect of other independence variables have on the standard error of the regression coefficient.

1980), which supports the assumption that there is not a multicollinearity problem overall. The collinearity statistics for each independent variable is provided below.

Table 9. Collinearity Statistics

	Tolerance	VIF
BPO	.883	1.133
ActionProcesses	.431	2.321
InterpersonalProcesses	.435	2.299
CONDITION INDEX	19.04	

Overall, the analyses show that the constructs in this study fulfill all of the multivariate assumptions except for normality which is encountered quite often in social sciences. Following this, exploratory factor analyzes were conducted for each construct to confirm their dimensionality.

The results of the factor analyses for the constructs are exhibited in Table 11. All constructs are multidimensional and total variances explained range from 55.1% to 63.9% representing that the derived factors explain more than half of the variability in constructs. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy values demonstrate the sufficiency of the data to derive the factors. The critical value for this measurement is .50 and KMO values for all of the constructs are well above this threshold. As for the values in the measures of sampling adequacy diagonals, none of them is below the critical value of .50 also. Bartlett's test of sphericity is significant for all constructs exhibiting that correlation matrix has significant correlations among at least some of the variables (Hair et al., 2010). Except for BPO, all the other constructs have 100% significant correlations in their correlation matrices.

Factor analysis for BPO yielded five different factors comprising of 26 items and the solution accounts for 63.9% of the variance among the responses of the participants in the study. Even though the original BPO scale has six factors, the resulting factors' dispersion is different from that of Spanyoli's (2006) scale. In this analysis, another item was deleted due to bad loading:

- "Managers here discourage employees from discussing work-related matters with those who are not their immediate superiors and subordinates."

The final  $\alpha$  was .87 which is above Hair et al.'s (2010) .70 requirement. In Appendix F, the item loadings of BPO are provided with respective eigenvalues, variance explained and cumulative variance explained figures.

The Team Action Processes construct originally has four factors. The solution at hand accounts for 55.1% of the variability in respondents' scores and has yielded two factors. Three items were deleted due to bad loadings:

- "Monitoring important aspects of our work environment (e.g., inventories, equipment and process operations, information flows)"
- "Regularly monitoring how well we are meeting our team goals"
- "Monitoring events and conditions outside the team that influence our operations"

The new  $\alpha$  became: .92.3 which is also above Hair et al.'s (2010) .70 requirement. Appendix G exhibits the item loadings in each factor for Team Action Processes along with respective eigenvalues, variance explained and cumulative variance explained figures.

On the other hand, the solution for Interpersonal Processes, which originally has three factors, yielded two factors as well. These factors account for 59.4% of the variance in the data. Two items were deleted due to bad loadings:

- “Encouraging each other to perform our very best”
- “Sharing a sense of togetherness and cohesion.”

The resulting  $\alpha$  became .919 which is above Hair et al.’s (2010) .70 requirement as well. Appendix H provides the item loadings in each factor for this construct along with respective eigenvalues, variance explained and cumulative variance explained figures.

Lastly, the factor analysis for Team Efficiency/Performance yielded to two factors as it was intended at the design stage. These factors explain 63.4% of the variability in respondent perceptions. In Appendix I, item loadings of Team Efficiency/Performance are provided with respective eigenvalues, variance explained and cumulative variance explained figures. To sum up, the resulting Cronbach’s Alpha values are presented in the following table:

Table 10. Cronbach’s Alpha Values of the Constructs

Construct	Cronbach’s Alpha
Business Process Orientation	.870
Action Processes	.923
Interpersonal Processes	.919
Team Efficiency and Performance	.829

Table 11. Summary Information on Factor Analyses

	Number of Factors	Total Variance Explained	KMO Measure of Sampling Adequacy	Bartlett's Test of Sphericity	Lowest Correlation in Measures of Sampling Adequacy Diagonal	% of Significant Correlations in the Correlation Matrix
BPO	5	63.9%	.929	.000	.638	88.90%
Team Action Processes	2	55.1%	.947	.000	.921	100%
Interpersonal Processes	2	59.4%	.943	.000	.924	100%
Team Efficiency/Performance	2	63.4%	.825	.000	.797	100%

## Measure Validation with Confirmatory Factor Analysis

Following the exploratory factor analyses, the validity and reliability assessment of the test of the measurement model with the whole sample was made. Psychometric properties of constructs were further evaluated by estimating three factor analysis (CFA) models in AMOS 19. First CFA model was carried out to determine the reliability and validity the constructs in this study. The second model is estimated for the same constructs in order to test for external validity and examine configural and metric invariance of the study data across two groups (Vandenberg and Lance, 2000).

In the first measurement model, coherent with the essential route in CFA, each item's loading is restricted to its a priori factor and each factor is allowed to correlate with other factors. The fit indices of the model are  $\chi^2_{(38)} = 151.36$ ,  $p < 0.01$ ; comparative fit index (CFI) = .93; goodness-of-fit index (GFI) = .93; root mean square error of approximation (RMSEA) = .09; and root mean square residual (RMR) = .05. As can be seen, the fit indices are at acceptable levels as noted by Hair et al. (2010). According to them, CFI and GFI values should be greater than .90 to indicate a model that fits well, while RMSEA should be between .03 and .08; and RMR should be smaller than .08. In addition, although this condition is usually not met, the  $\chi^2$  statistic should be represented with lower values. It should also be noted that only looking at the  $\chi^2$  does not give one an idea about the goodness of fit of a particular model because the resulting  $p$ -value becomes a less meaningful indicator if the sample size increases and/or the number of observed variables in that model increases.

After examining the factor loadings and squared multiple correlation values, two factors with relatively low factor loadings (smaller than at least .50 and preferably .70 as suggested by Hair et al., 2010) and correlations were eliminated. The first one was the third factor of BPO (Interdepartmental Conflict) and the second one was the fifth factor of BPO (Interdepartmental Correctedness) extracted via the exploratory factor analysis. The Interdepartmental Conflict factor includes five items pertaining to statements about the existence of potential interdepartmental disagreements in a given organization. The Interdepartmental Correctedness factor is comprised of only one item relating to the “proper” way of doing things do that the hierarchical layers are not disrupted. The examination of the factor loadings and squared multiple correlation values pointed to the elimination of these factors. It is accepted that this elimination is logical in the sense that Interdepartmental Conflict items were also problematic in the pilot study. The real reason why these items appear in the analysis could not be determined for sure, they clearly disturb the validity of the BPO construct. Conceptually, BPO includes ensuring employees from a particular department to work easily with other employees from different departments (i.e. cross-functional integration) and determining whether there is interdepartmental conflict in a given business setting is vital for verifying that the employees have process mindset. The researcher thinks that if this factor returns as a problematic one with the actual sample, one can assume that this is a larger issue than just social desirability bias. This problem could be pointing towards the fact that even though the employees are conscious about business processes, their respective organizations might not be designed around processes and still rely mostly on hierarchical elements. The fifth factor is about hierarchy and functional segmentation

which is not in line with BPO mindset. Hence, the researcher can see why its elimination is necessary to increase the validity of the BPO construct. The following table shows what the deleted item is along with its factor loading and squared multiple correlations.

Table 12. Summary Information on Deleted Items

Item	Factor Loading (Standardized Regression Weights )	Squared Multiple Correlation
BPO - Interdepartmental Conflict	-0,271	0,074
High tension when members of several departments get together		
Disliking to interact people from different departments		
Employees thinking that goals of different departments are not in harmony		
Protecting departmental turf		
Departments pursuing incongruent goals		
BPO - Interdepartmental Correctedness	0,243	0,494
Communicating from one department to another through “proper channels”		

After this elimination, it is observed that the fit indexes ( $\chi^2_{(21)} = 105.56, p < .01$ ; CFI = .95; GFI = .94; RMSEA = .10 and RMR = .03) are within acceptable levels referred previously. As can be seen, the chi-square change is significant ( $\Delta\chi^2_{(17)} = 45.8, p < .01$ ) value, meaning that the BPO scale improved in terms of its validity. All factor loadings, except for Interdepartmental Conflict and Interdepartmental Correctedness, which are exhibited in Appendix J, are above .70 as preferred by Hair et al. (2010: 808). All reliability scores are above .70 except for Team Efficiency/Performance which is .60. Hair et al. (2010:778) note that reliability between .60 and .70 are acceptable

provided that the other variables in the study have good construct validity. The average variance extracted (AVE) by each construct is above .50 indicating convergent validity. Also, discriminant validity, which basically denotes the extent to which a construct is conceptually distinct from other constructs (Hair et al., 2010) must be looked into. Normally, the AVE values for any two constructs should be greater than the square of their interconstruct correlation which ensures discriminant validity. For most of the correlations in this study this condition is fulfilled except for the correlations between Team Action Processes and Interpersonal Processes ( $r^2 = .79$ ) and Interpersonal Processes and Team Efficiency/Processes ( $r^2 = .63$ ). This was actually expected, because the perceptions of the fitness of interpersonal relationships among the members of a team are closely affected by the perceptions of how they do things and how good they are in performing what they are supposed to do. Even with a survey that consists of organizational-level questions, the human relations aspect is very influential in how employees perceive the model of this study. Still, the congeneric measurement model supports discriminant validity since there are no cross-loadings (Hair et al., 2010). To sum up, the validity and reliability assessment suggests that the measures of the study are valid and reliable to a great extent.

Table 13 exhibits descriptive statistics and correlations for all constructs. As can be seen from the table, all independent variables are positively and significantly correlated to Team Efficiency/Performance. Further all of the constructs are significantly correlated with one another as well which provides support for, as noted by Hair et al., (2010: 811) nomological validity. The highest correlation is between Team Action Processes and Team Efficiency/Performance ( $r = .81, p < .01$ ) followed by Team Action

Processes and Interpersonal Processes ( $r = .79, p < .01$ ) along with Interpersonal Processes and Team Efficiency/Performance ( $r = .79, p < .01$ ).

Table 13. Descriptive Statistics and Correlations

	M	SD	AVE <sup>a</sup>	Reliability <sup>b</sup>	1	2	3	4
Business Process Orientation (1)	4.86	.79	.67	.85	1			
Team Action Processes (2)	5.02	.64	.71	.74	.33*	1		
Interpersonal Processes (3)	5.12	.69	.66	.71	.39*	.79*	1	
Team Efficiency/Performance (4)	5.15	.62	.52	.60	.29*	.81*	.79*	1

a = Variance Extracted is computed by dividing the total of all squared multiple correlations by the number of factors of a construct.

b = Construct Reliability is computed by squared sum of factor loadings for each construct and the sum of the error variance terms for a construct.

\* =  $p < .01$  (two-sided)

Following the test of the measurement model with the whole sample, two multi-group analyses were undertaken to ensure that this model can be used to compare different groups of respondents (Vandenberg and Lance, 2000) as well as the capacity of this model to be cross-validated (Hair et al., 2010). The groups are determined according to being a member in a team or being the manager of a team. Hair et al. (2010: 823) notes that it is imperative to attain full configural and partial metric invariance of the measures in CFA. For configural invariance, in line with Hair et al.'s (2010) statements, since all of the respondents (team members and team managers) completed the same survey; hence ensuring that each of the groups in the CFA model have the same number of constructs and items associated with each construct. The next step involves conducting a multi-group CFA for each group.

Results related to this multi-group model testing for configural invariance reveal that the fit indexes are within acceptable levels ( $\chi^2_{(42)} = 139.57, p < .01$ ; CFI = .94; GFI = .92; RMSEA = .08 and RMR = .04) which statistically verify the existence of

configural invariance across team members and team managers. This means that the number of factors and pattern of their structure are similar (Bryne, 2001) across team members and team managers. As for Metric invariance, support was also established owing to adequate fit statistics ( $\chi^2_{(47)} = 146.18, p < .01$ ; CFI = .94; GFI = .92; RMSEA = .08 and RMR = .04). The chi-square difference test for the configural and metric invariance indicates that the additional variance constraint on the factor loadings (i.e. constraining the factor loadings to be equal across groups) does not significantly affect the fit of the CFA model when compared to unconstrained configural invariance model ( $\Delta \chi^2_{(5)} = 6.61, p > .25$ ). All of these findings confirm the existence of measurement invariance across team members and team managers, which sets the study on solid grounds.

### Hypotheses Testing with Structural Equation Modeling

Of the participating 149 firms, 1 or 2 (if available) team members along with 1 team manager, all of whom were from among the middle-level employees in these service firms, had been interviewed face-to-face by using structured a questionnaire which gave way to a total of 368 observations.

After validating that the measurement models are acceptable, structural relationships in the hypothesized model were tested using the data of the survey by the structural equation modeling methodology in AMOS 19. At this phase of the research, four different structural models have been estimated. For the Structural Equation Modeling (SEM), the team member data was aggregated to team-level since the level of analysis is the team. The first model was estimated by using team managers' data and

team member data (n=298); the second one was estimated by team members' data for the dependent and independent variables (n=149); the third one was estimated by using team managers' data for the dependent and independent variables (n=149); and the last one was estimated by using members' data for the independent variables and managers' data for the dependent variable (n=149) to overcome common method bias. One important thing here to note is that, seeing Team Action Processes and Interpersonal processes had a very high correlation with each other ( $r = .79$ ), their error terms were correlated in the analysis stage. To depict this, a two-way arrow is added to Figures 2, 3, 4, and 5.

In the first model where Team Efficiency/Performance was predicted by both teams in the sample and their managers, the fit indexes ( $\chi^2_{(19)} = 46.25$ ,  $p < .01$ ; CFI = .98; GFI = .96; RMSEA = .06 and RMR = .02) demonstrate that the hypothesized model fits the data well. All the selected indices are within acceptable levels. The parameter estimates for the hypothesized paths are provided in Table 14, and Figure 2 demonstrates the structural path estimates in the hypothesized model.

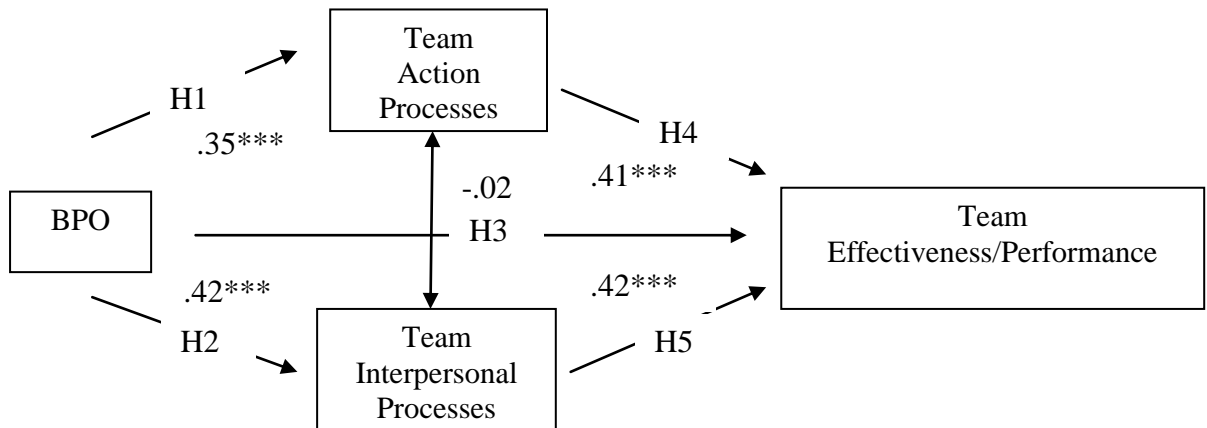
The results suggest that BPO has a significant effect on Team Action Processes (H1) ( $\gamma = .35$ ,  $p < .001$ ) and Interpersonal Processes (H2) ( $\gamma = .42$ ,  $p < .001$ ). On the other hand, BPO does not have a significant effect on Team Efficiency/Performance (H3). The relationship between Team Action Processes and Team Efficiency/Performance (H4) ( $\beta = .41$ ,  $p < .001$ ) and the relationship between Interpersonal Processes and Team Efficiency/Performance (H5) ( $\beta = .42$ ,  $p < .001$ ) are both significant.

Table 14. Parameter Estimates (Model 1)

Hypothesized Path	Non-Standardized Parameter Estimate	Standardized Parameter Estimate	t Value	Results of Hypothesis Testing
H1: Business Process Orientation → Team Action Processes	.27	.35	5,25***	Supported
H2: Business Process Orientation → Interpersonal Processes	.36	.42	6,31***	Supported
H3: Business Process Orientation → Team Effectiveness/Performance	-.02	-.02	-0,30	Not Supported
H4: Team Action Processes → Team Effectiveness/Performance	.42	.41	3,61***	Supported
H5: Interpersonal Processes → Team Effectiveness/Performance	.39	.42	3,23***	Supported

\*\*\* =  $p < .001$  (two-tailed)

Figure 2. Hypothesized model with standardized path coefficients (Model 1)



In addition to this analysis, the existence of full mediation (i.e. no direct paths between exogenous and endogenous constructs) is assessed by removing the direct paths in the model and examining the significance of change in the chi-square value. The chi-square difference test revealed that there is not a significant difference between the models ( $\Delta\chi^2_{(1)} = 0.09, p > .25$ ) and thus validates that BPO is fully mediated by Team Action Processes and Interpersonal Processes in order to predict Team Effectiveness/Performance significantly. Additionally, the assessment of the total effect sizes (i.e. effect sizes of both direct and indirect paths) of different constructs on Team Effectiveness/Performance revealed that Action Processes have the highest total effect (.42) followed by Interpersonal Processes (.38), followed by the path between BPO and Interpersonal Processes (.35), followed by the path between BPO and Action Processes (.27), and the direct path from BPO to Team Efficiency Performance (.25).

In the second model, where Team Efficiency/Performance was predicted by team members, the fit indexes ( $\chi^2_{(19)} = 39.66, p = .004; CFI = .97; GFI = .94; RMSEA = .08$

and RMR = .04) demonstrate that the hypothesized model corresponds the data well. As can be seen, all the selected indexes are within acceptable levels. The parameter estimates for the hypothesized paths are provided in Table 15, and Figure 3 demonstrates the structural path estimates in the hypothesized model.

The results suggest that BPO has a significant effect on Team Action Processes (H1) ( $\gamma = .40$ ,  $p < .001$ ) and Interpersonal Processes (H2) ( $\gamma = .46$ ,  $p < .001$ ). On the other hand, BPO does not have a significant effect on Team Efficiency/Performance (H3). The relationship between Team Action Processes and Team Efficiency/Performance (H4) ( $\beta = .48$ ,  $p < .001$ ) and the relationship between Interpersonal Processes and Team Efficiency/Performance (H5) ( $\beta = .36$ ,  $p < .05$ ) are both significant.

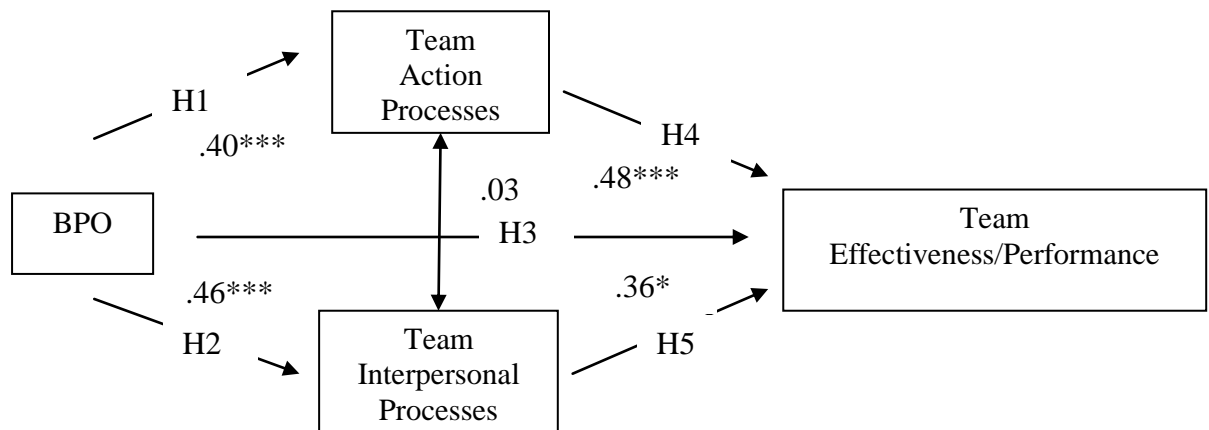
Table 15. Parameter Estimates (Model 2)

Hypothesized Path	Non-Standardized Parameter Estimate	Standardized Parameter Estimate	t Value	Results of Hypothesis Testing
H1: Business Process Orientation → Team Action Processes	.30	.40	4,38***	Supported
H2: Business Process Orientation → Interpersonal Processes	.39	.46	5,13***	Supported
H3: Business Process Orientation → Team Effectiveness/Performance	.02	.03	0,35	Not Supported
H4: Team Action Processes → Team Effectiveness/Performance	.48	.48	3,30***	Supported
H5: Interpersonal Processes → Team Effectiveness/Performance	.32	.36	2,19*	Supported

\*= p < .05 (two-tailed)

\*\*\*= p < .001 (two-tailed)

Figure 3. Hypothesized model with standardized path coefficients (Model 2)



In addition to this analysis, the existence of full mediation is evaluated by deleting the direct paths in the model and examining the significance of change in the chi-square value. The chi-square difference test reveals that, again, there is not a significant discrepancy between the models ( $\Delta\chi^2_{(1)} = 0.12, p > .25$ ), and thus validates that BPO is fully mediated by Team Action Processes and Interpersonal Processes in order to predict Team Effectiveness/Performance significantly. Evaluation of the total effect sizes revealed that Action Processes have the highest total effect (.48), followed by the path between BPO and Interpersonal Processes (.46), followed by the path between BPO and Action Processes (.39), followed by Interpersonal Processes (.37), and the direct path from BPO to Team Efficiency Performance (.36).

In the third model where Team Efficiency/Performance was predicted by team managers, the fit indexes ( $\chi^2_{(18)} = 31.81, p = .023; CFI = .97; GFI = .95; RMSEA = .07$  and  $RMR = .01$ ) demonstrate that the hypothesized model is consistent with the data. As can be observed, all the selected indexes are within acceptable levels. The parameter

estimates for the hypothesized paths are provided in Table 16, and Figure 4 demonstrates the structural path estimates in the hypothesized model.

The results suggest that BPO has a significant effect on Team Action Processes (H1) ( $\gamma = .40, p < .001$ ) and Interpersonal Processes (H2) ( $\gamma = .46, p < .001$ ). On the other hand, BPO has a significant negative effect on Team Efficiency/Performance (H3) ( $\gamma = -.26, p < .05$ ). This is probably because managers are still relying on hierarchic control mechanisms to ensure Team Efficiency/Performance and they find business processes to have a negative effect on Team Efficiency/Performance. The relationship between Team Action Processes and Team Efficiency/Performance (H4) ( $\beta = .48, p < .001$ ) and the relationship between Interpersonal Processes and Team Efficiency/Performance (H5) ( $\beta = .36, p < .05$ ) are both significant.

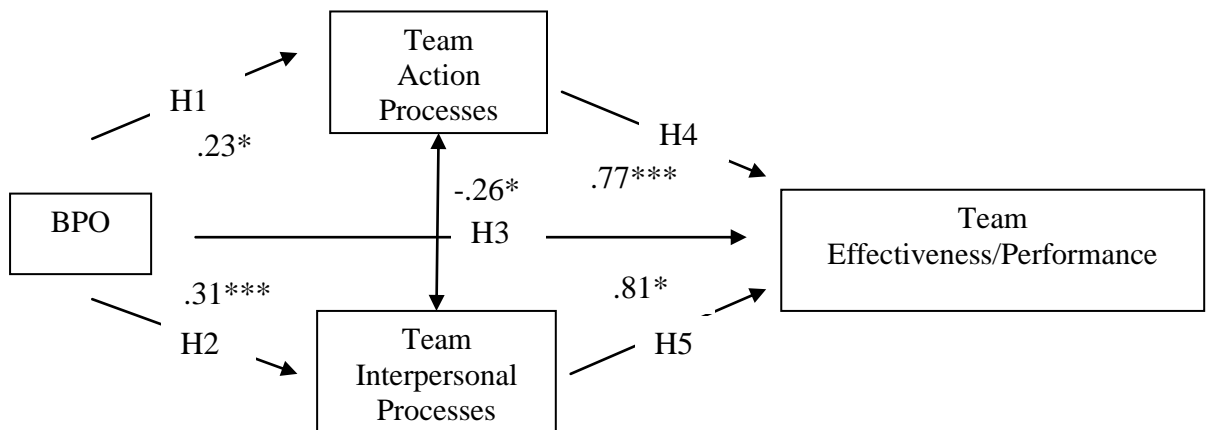
Table 16. Parameter Estimates (Model 3)

Hypothesized Path	Non-Standardized Parameter Estimate	Standardized Parameter Estimate	t Value	Results of Hypothesis Testing
H1: Business Process Orientation → Team Action Processes	.21	.23	2,41*	Supported
H2: Business Process Orientation → Interpersonal Processes	.28	.31	3,24***	Supported
H3: Business Process Orientation → Team Effectiveness/Performance	-.23	-.26	-2,18*	Supported
H4: Team Action Processes → Team Effectiveness/Performance	.77	.77	7,37***	Supported
H5: Interpersonal Processes → Team Effectiveness/Performance	.80	.81	6,34***	Supported

\*= p < .05 (two-tailed)

\*\*\*= p < .001 (two-tailed)

Figure 4. Hypothesized model with standardized path coefficients (Model 3)



In addition to this analysis, the existence of full mediation was evaluated by deleting the direct paths in the model and examining the significance of change in the chi-square value. The chi-square difference test revealed that, again, there is not a significant discrepancy between the models ( $\Delta\chi^2_{(1)} = 5.03, p > .025$ ) and thus validated that BPO is mediated by Team Action Processes and Interpersonal Processes in order to predict Team Effectiveness/Performance significantly. Evaluation of the total effect sizes revealed that Interpersonal Processes have the highest total effect (.37), followed by Action Processes (.72), followed by the direct path from BPO to Team Efficiency Performance (.22), followed by the path between BPO and Interpersonal Processes (.18), and followed by the path between BPO and Action Processes (.11).

In the last model, where team members' data of BPO, Team Action Processes and Interpersonal Processes predicted by team managers' Team Efficiency/Performance data, the fit indexes ( $\chi^2_{(18)} = 37.50, p = .005; CFI = .97; GFI = .95; RMSEA = .08$  and  $RMR = .03$ ) demonstrate that the hypothesized model is consistent with the data. This

analysis was conducted to overcome common method bias that has been numerously mentioned in the team-research literature (Janz, Colquitt & Noe, 1997; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). All the selected indexes are within acceptable levels. The parameter estimates for the hypothesized paths are provided in Table 17, and Figure 5 demonstrates the structural path estimates in the hypothesized model.

The results suggest that BPO has a significant effect on Team Action Processes (H1) ( $\gamma = .39$ ,  $p < .001$ ) and Interpersonal Processes (H2) ( $\gamma = .44$ ,  $p < .001$ ). On the other hand, BPO does not have a significant effect on Team Efficiency/Performance (H3). On the other hand, the relationship between Team Action Processes and Team Efficiency / Performance (H4) ( $\beta = .29$ ,  $p < .05$ ) is significant. However, the association between Interpersonal Processes and Team Efficiency/Performance (H5) is not significant.

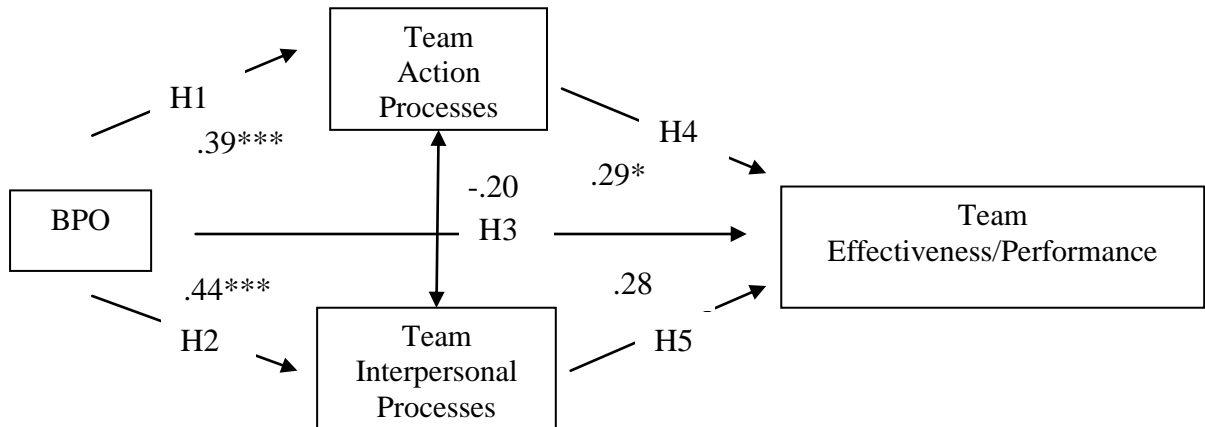
Table 17. Parameter Estimates (Model 4)

Hypothesized Path	Non-Standardized Parameter Estimate	Standardized Parameter Estimate	t Value	Results of Hypothesis Testing
H1: Business Process Orientation → Team Action Processes	.28	.39	3,76***	Supported
H2: Business Process Orientation → Interpersonal Processes	.40	.44	5,27***	Supported
H3: Business Process Orientation → Team Effectiveness/Performance	-.10	-.20	-1,38	Not Supported
H4: Team Action Processes → Team Effectiveness/Performance	.20	.29	2,10*	Supported
H5: Interpersonal Processes → Team Effectiveness/Performance	.15	.28	1,87	Not Supported

\*= p < .05 (two-tailed)

\*\*\*= p < .001 (two-tailed)

Figure 5. Hypothesized model with standardized path coefficients (Model 4)



Following this analysis, the existence of full mediation is evaluated by deleting the direct paths in the model and examining the significance of change in the chi-square value. The chi-square difference test reveals that, again, there is not a significant difference between the models ( $\Delta\chi^2_{(1)} = 1.32, p > .25$ ) and thus validates that BPO is mediated by Team Action Processes and Interpersonal Processes in order to predict Team Effectiveness/Performance significantly. Evaluation of the total effect sizes revealed that the path between BPO and Interpersonal Processes has the highest total effect (.43), followed by and followed by the path between BPO and Action Processes (.39), followed by Action Processes (.22), followed by Interpersonal Processes (.20), and followed by the direct path from BPO to Team Efficiency Performance (.17).

The subsequent table exhibits the summary of the results of each model testing for the hypotheses. In the next section, these results will be discussed along with theoretical and practical implications of the study. This section will also explain certain limitations to the study followed by concluding remarks.

Table 18. Summary of the Results of Hypotheses Testing

Hypothesized Path	Results of Hypothesis Testing							
	Model 1		Model 2		Model 3		Model 4	
H1: Business Process Orientation → Team Action Processes	Supported	.35***	Supported	.40***	Supported	.23*	Supported	.39***
H2: Business Process Orientation → Interpersonal Processes	Supported	.42***	Supported	.46***	Supported	.31***	Supported	.44***
H3: Business Process Orientation → Team Effectiveness/Performance	Not Supported	-.02	Not Supported	.03	Supported	-.26*	Not Supported	-.20
H4: Team Action Processes → Team Effectiveness/Performance	Supported	.41***	Supported	.48***	Supported	.77***	Supported	.29*
H5: Interpersonal Processes → Team Effectiveness/Performance	Supported	.42***	Supported	.36*	Supported	.81*	Not Supported	.28

## CHAPTER EIGHT

### DISCUSSION, IMPLICATIONS, AND CONCLUSION

This is a study about organizational teams in country setting and in global business environment. Thus, the current study was conducted with the purpose of investigating whether BPO (Business Process Orientation) and teams are related as concepts in a service industry setting in Turkey. It is supposed that Turkey is very relevant in this sense. Although the Turkish marketplace is considered emerging, it attracts fierce competition from developed and newly rising economies in most of its sectors. That's why the Turkish businesses face the need to become more efficient in order to overcome the existing deficiencies in the market mechanisms whilst meeting the demands rising from competition and customer requirements.

As a gap in the literature concerning these issues was spotted, investigating how teams carry out their tasks and handle interpersonal relationships from an organizational design perspective was deemed essential. Thus, another aim was to shed light on how far along the teams operating in Turkish organizations were being utilized in terms of achieving their goals, handling interpersonal relationships and having a significant place in effectiveness/performance both for themselves and their respective organizations.

Further, this endeavor seeks to illuminate how these relations reflect on team

effectiveness/ performance. Fundamentally, the model that is put forward for this study seeks to measure team effectiveness in team-based settings and is inclined to reveal the requirements for team effectiveness in Turkey whilst depicting the problems that may be present in the utilization of teams in organizations.

Subsequently, the research model was tested with a representative sample of domestic and multinational service firms operating in Turkey. The general outlook for Turkish service firms is that they have captured the global business reality and the necessity of standing out amongst their competitors and have started working towards that end. To test the hypothesized relationships, a quantitative research that involved the administration of a survey was conducted. Data were collected from 368 middle-level team members and team managers who are employed in service firms operating in İstanbul, İzmir, Ankara, Bursa, Kocaeli and Antalya provinces. The obtained data was analyzed with structural equation modeling procedure available in AMOS 19.

The major finding of the study is that BPO, Team Action Processes, Interpersonal Processes and Team Effectiveness/Performance are indeed positively related to one another in an organizational setting, as was anticipated. However, the results indicate that this relationship is significant only when Business Process Orientation is mediated by Team Action Processes and Interpersonal Processes in predicting Team Effectiveness/Performance. This means that BPO increases Team Effectiveness/Performance by improving team processes. Although BPO indirectly predicts Team Effectiveness/Performance, still, considering that the relationship between Business Process Orientation and team processes and team effectiveness/performance has not been established before, this finding takes the first

step in verifying the existence of this relationship and therefore paves the way for future endeavors.

As for specific relationships that were hypothesized, Team Action Processes and Interpersonal Processes positively predict Team Effectiveness/Performance and their predictive power is quite significant. Primarily, this finding is in line with the literature that explored the similar relationships (ex: Marks et al., 2005; Mathieu and Shulze, 2006; Mathieu, Gilson and Rudy, 2006, Zhou and Wang, 2010). Next, it is an important result in the sense that Turkey is considered a fast developing country and one of the rising markets, and but its job market is deemed as a less structured an advanced one. This finding validates, however, that the teams operating in the service industry in the major cities of Turkey are performing in the way that had been foreseen in the developed markets. Thus, it can be concluded that the way these companies execute their assignments while handling interpersonal relationships tells a lot about their level of effectiveness and performance.

Moreover, the results show that BPO predicts Team Action Processes and Interpersonal Processes positively and significantly. This means that teams are certainly a must when working around business processes in a country and global context, and thinking in terms of these processes has a noteworthy effect on how teams operate and how they manage interpersonal relationships. This indicates that as processes involve complex tasks to be carried out in order to create value, different individuals within the context of a team contribute a lot to the table in terms of efficiency, performance and ultimately customer orientation. Since they use each other's resources in the form of expertise, experience and/or know-how, this finding signifies that team members are

able to grasp a lot more about what their efforts are geared to and they break free from the fragmented view that was imposed on them by specialized jobs. It can be inferred, the team mechanism and business processes go hand in hand and designing around these components will offer both a fresh perspective in striving for excellence.

In terms of the significance of BPO, Team Action Processes and Interpersonal Processes in predicting Team Effectiveness/Performance, it can be said that Team Action Processes and Interpersonal Processes stand out more as the results point out. It turns out that BPO has a significant indirect relationship with Team Effectiveness/Performance. This finding might point out to the still “developing” part of the organizational designs in Turkey. Even if the organizations are aware of their major business processes and attempting to work around them, their organizational designs might not be in line with their process outlook. It is inferred that, the designs of the organizations in the sample have more hierarchic components when compared to process design components. Especially, the deletion of Interdepartmental Conflict factor of BPO for this study is a clear sign of this fact. It obviously points at either a lack of interdepartmental coordination or job designs that do not involve interdepartmental interaction in executing the assigned tasks. To deal with of the organizational aspect, the Turkish organizations need to exhibit a lot of effort, diligence, far-sightedness, goodwill, and organizational motivation for the utilization of teams so that their structure becomes one that supports their business, not one that stands in the way of content and returning customers.

Last but not least, the congruence between the views of team members and team managers in terms of the proposed relationships among BPO, Team Action

Processes, Interpersonal Processes and Team Effectiveness/Performance will be the subject of last comments. The team members and team managers generally have close opinions and evaluations about teamwork and administration issues in these companies. The only issue where team members and team managers do not agree is that, team members think that the model depicts an accurate snapshot of their reality except for the association between BPO and Team Effectiveness/Performance. This might be due to the fact that the hierarchic components get in the way of their view of processes and their orientation towards these particular processes. As they are middle-level employees, they still have a lot to learn about the big picture of their respective organizations and hence, they might not yet see BPO's association with Team Effectiveness/Performance. Even if the managers are middle-line, being a manager still gives a better sense of the whole business and the relationships with the external stakeholders. Middle-line managers interact with higher-level managers and even with business owners. Thus, they may have observed how BPO predicts Team Effectiveness/Performance as they know how business processes affect their respective teams.

### Theoretical Implications

The results of the study have prominent implications for both the business process and team literatures. For the business process literature, this study puts the transition from hierarchic structures into process-led ones into perspective by verifying the relationship between business processes and the utilization of teams. This endeavor brings the business process literature into the management area, particularly organizational design

as a new component. Until now, the business process concept was investigated in computer engineering, systems thinking (Checkland, 1981), cybernetics (Beer, 1966) and so forth thoroughly; however, it was not explored from an organizational design point of view.

When one considers the literature on business processes, the majority of the endeavors is about what business processes can offer if organizations could organize their core structures around business processes. With globalization, this need has become even more vital. Still, most of the writings may sound too idealistic and seem to be unachievable in the every-day struggles of hard and unforgiving market competition. As the model in this study indicates, processes are way too complex for one individual to handle and therefore, teams might be employed for a particular process to operate properly. The introduction of teams and their coordination towards clear goals is the ultimate expected link. This undertaking verified that the utilization of teams is related to business processes. It may be said that a new path in business process research has been initiated. Having the team literature introduced to business process literature, new theoretical research can be conducted from here on.

A significant implication of this undertaking for the team literature is the fact that it upgrades the level of team research conducted until now. The majority of the endeavors are from organizational behavior point of view such as attitudes (Emmerik and Brenninkmeijer, 2009); group social capital (Bliese and Castro, 2000; Emmerik and Brenninkmeijer, 2009); team communication (Ancona and Cladwell, 1992); team goal commitment (Aubé and Rouseau, 2005); group personality, task focus and shared exchange (Bond and Wing-Chun Ng, 2004); work team characteristics (Campion,

Medsker and Higgs, 1993; Campion et al., 1996); transactive memory (Austin, 2003); cohesion (Beal et al., 2003; Chiochio and Essiembre, 2009); team reflexivity (Carter and West, 1998); encouraging supervisor behaviors, group characteristics, employee involvement (Cohen et al., 1996); relationship conflict and task conflict (De Dreu and Weingart, 2005; Konradt et al., 2009); shared mental models and team commitment (Kang et al., 2006); goal setting, interpersonal relations, problem-solving and role clarification (Klein et al., 2009); organizational citizenship behavior (Nielsen et al., 2009); interdependence, team self-leadership, intrateam processes and task type (Stewart and Barrick; 2000); and group-level helping (Yee Ng and Van Dyne, 2005). From an organizational design point of view, team research has been rare; some of the research was about task design (Cohen et al., 1996); coordination (Hoegl et al., 2004); and intrateam processes and task type (Stewart and Barrick; 2000). Still, these studies' constructs are at the micro level. Business processes are on the other hand, macro level design elements just like their counterparts in the hierarchic structures such as functions and/or departments. Hence, this study injects the team mechanism into a macro design and seeks to find out about the extent that teams fit with business processes and in turn, how teams' view of these processes affect their effectiveness/performance levels.

### Practical Implications

As indicated in the theoretical implications, the writings focusing on the importance of business processes possibly will sound too idealistic and seem to be unattainable in the daily struggles of conducting business and while trying to survive under heightened

market competition. From an organizational design point of view, the findings of this study provides the organizations a way out of this dilemma. This endeavor proves that by employing teams, even in relatively hierarchic structures, organizations can initiate cross-functional integration which is the first step in mitigating the barriers between departments for greater efficiency and results. Once employees from different functions and backgrounds find a common ground where their total efforts exceed their individual efforts, even without realizing, they will be setting the ground work for operating around core business processes. By doing this, as their view of business is going to be expanded, employees and team members will come to understand what key processes involve more easily and see how they fit into the whole organizational structure. Leadership qualities of team managers may be supported for further self-development while the organizational culture change can be taken up to encompass and work with teams. Organizations can modify employees' individual attitudes towards teams and team membership by team motivation and team reward policies to improve organizational climate for the sake of easing cross-team activity inside or outside their companies.

Another significant outcome is for the customers, because processes are defined as a group of tasks that generate value for the customer. That value is in the shape of worthy goods and services that customers come back for repeatedly. Furthermore, that value is eventually created for the business itself as returning satisfied customers increase the cash flow. Ultimately, all organizations will have to be designed around their core processes so that they can keep pace with the increasingly competitive marketplace. Now, the customers know a lot more than they did 50 years ago, they have

many specific requirements and demands, they have too many options on the market and they are not loyal to brands. As was mentioned previously, hierarchies create a lot of over-head, repetition and waste just for the sake of running the business procedures. For example, approvals become problematic and time consuming as they need to travel higher up in the hierarchy or go to other departments. This leads to delays, conflict among employees and managers and eventually reflects on customers one way or another and in the expense of potential revenues of the business which is managerial cost. The way to get rid of this managerial cost is by designing around processes and teams that make customers happy and have the ability to generate new ones. It is a fact that processes cannot become the basic design component for an organization overnight. Thus, teams offer themselves as useful tools for organizations in the quest to become more flexible, responsive and adaptive ones. Accordingly, this undertaking is one that proves that teams are in fact practical mechanisms in the transition from hierarchic structures to process-based organizations that aim for superiority and endurance in the market.

### Limitations

The main limitation of the study is the fact that it was conducted only in the service industry. Therefore, generalizability could become an issue since data from the manufacturing sector could provide the researcher with a larger pool of organizations to analyze. Another perspective would give a wider perspective to the researcher to comment on as manufacturing sector's dynamics are totally different from the dynamics

of the service industry. Thus, the real life reflection of the theoretical model in the manufacturing sector is yet unidentified.

Another limitation is related to sample size. Even though data was collected from 368 employees, the data obtained from team members were aggregated which is reflected on the sample size. As SEM (Structural Equation Modeling) is very reliant on sample size, the models' fit improves as sample size gets larger. Therefore, SEM procedure could have led to better fitting models with a larger sample and this could have led to better generalizability.

As for providing more insight to the study, focus groups could have been employed. The detailed description of the work environments and further content analysis could have provided the researcher more information about the existence of hierarchic and process-based design components and offered her grounds for specific interpretations.

With respect to the measurement scales, the instrument administered to measure BPO has not been utilized in an academic study before. Even if the reliability score of this instrument was satisfactory, the items about Interdepartmental Conflict most probably might have created a social desirability bias on the part of the participants towards the study and eventually would have led to the deletion of this factor. Having to eliminate items for the sake of fulfilling statistical requirements might not end up explaining more about a construct. Conversely, this leads to the removal of an aspect of reality which eventually deprives the researcher from her/his opportunity to get a sense of what really is going on.

## Conclusion

To sum up, it has become apparent that complexity and change have become a way of life and organizations will sooner or later have to update their organizational configurations in order to keep up with the rapidly changing requirements of their customers in order to survive. As the traditional design tools have started to become less and less adequate, stimulating new ways of thinking should enter the stage of organizational structures.

As the marketplace that the organizations try to endure in has become very complex, thanks to globalization, process oriented thinking has become a *sine qua non*. It is hence maintained that BPO provides organizations the sophistication that they were soliciting in order to be able to become more dynamic, flexible, adaptive and responsive. BPO has the potential to diffuse a holistic view of businesses to the organizational members. That is a huge advantage for individuals who are not at top management levels, and were stuck with a fragmented view of business outcomes due to their specialized, task-oriented jobs. Up until now, it was only the top layers of an organization that had the complete view of things. However, the marketplace is transforming into a place where the relationships and ways of conducting business are becoming very intricate and complex. Possessing a minority of top managers with the view of nearly complete reality has begun to be insufficient. BPO is becoming very essential at every level of a given organization. It is supposed that organizations can make and keep their customers even more content when they prove themselves to be capable of attending to problems at the very spot when they occur as well as having the

capacity to swiftly update their offerings. Thus, BPO should be made an integral part of any organization that seeks to get a full grasp of what is going on in the marketplace and craft its strategy accordingly.

At this point, teams come into the picture as useful tools especially for synergetic lateral coordination of organizations. Teams can accommodate individuals from different functions and backgrounds that are seeking to achieve a collective goal that would otherwise could hardly come together within the functional mindset of hierarchical structures. Thus, teams involve multiple participants with various perspectives and expertise which will in turn pave the way for well-informed, well-rounded and integrative decisions. Teams provide organizations with the advanced flexibility and mobility they probe in the contemporary complex and uncertain business environment.

Given all these facts, BPO and teams inevitably appear to be a match made in heaven. As too rigid hierarchic structures may hinder BPO, teams prove themselves to be more flexible and adaptive in a case where customer requirements change. Accordingly, this academic study has sought to reveal whether there is a beneficial relationship between BPO and the utilization of teams whilst investigating how teams carry out their tasks and handle interpersonal relationships from an organizational design perspective. What is more, the study aimed at shedding light on how these relations reflect on team effectiveness / performance, which will eventually add up to the overall organizational effectiveness / performance of the organization.

This endeavor investigated the relationship between Business Process Orientation, Team Action Processes, Interpersonal Processes and Team Effectiveness /

Performance in service firms operating in Turkey by applying the theoretical model constructed. The foremost finding of the study is that Business Process Orientation has a significant relationship with Team Action Processes, Interpersonal Processes and with Team Effectiveness/Performance. The results indicate that the relationship is significant only when Business Process Orientation is mediated by Team Action Processes and Interpersonal Processes in predicting Team Effectiveness / Performance. Considering that the relationship between Business Process Orientation and team processes and team effectiveness/performance has not been established before, this finding constitutes the first step in verifying the existence of such a relationship between the business processes and the relevant teams in the companies. This study therefore makes its contribution to the business processes literature by laying the blueprint for future endeavors.

Being in tune with the current trends and realities is of utter importance. Applying post-modern design tools that are backed up with contemporary ways of thinking will provide the Turkish or other organizations the leap that they are looking for. Accordingly, it is apparent that Turkey is tenacious in the quest for becoming an integral part of the global community. Thus, this study proves that the organizational configurations of the service firms in the private sector are in pace with those in the developed markets even though they still have a lot to accomplish.

Future research can examine this model in the manufacturing sector with a broader range of outcome variables such as organizational performance and customer satisfaction. It is also recommended that this model be upgraded by testing the moderating effects of team type (Cohen and Bailey, 1997) and task structure. The investigation of the differences in various team types such as project teams, quality

circles, work teams and management teams will provide a snapshot of different aspects of reality and will give a better sense of the standing of organizations in terms of advanced structures.

## APPENDICES

## Appendix A. Questionnaire in English

### BUSINESS PROCESS ORIENTATION IN TEAMS SURVEY

This questionnaire has been prepared by Meral Dülger as part of her dissertation in her PhD program at Boğaziçi University, Department of Management. The study was designed in order to find out about the extent to which individuals can see their jobs as a part of a business process. To this end, the aim is to gather data from employees who are working in service companies and within teams. Data collected throughout this study will be converted into numerical data for further analysis and will not be shared with third parties. Please read the questions carefully, answer them honestly and do not leave any unanswered questions so that the results are meaningful.

*CAUTION: The survey has 6 sections, please make sure that you answer all the questions.*

SECTION 1: Please indicate to what extent the following statements you agree with. (1=Definitely Disagree, 2=Disagree, 3=Somewhat Disagree, 4=Somewhat Agree, 5= Agree, 6=Definitely Agree)

IN OUR WORKPLACE:	Definitely Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Definitely Agree
1. The average employee views the business as a series of linked processes.	1	2	3	4	5	6
2. The business processes are sufficiently defined so that most people in the organization know how they work.	1	2	3	4	5	6
3. Jobs are multidimensional.	1	2	3	4	5	6
4. Jobs are not just simple tasks.	1	2	3	4	5	6
5. People are constantly learning new things on the job.	1	2	3	4	5	6
6. Process performance is measured in our organization.	1	2	3	4	5	6
7. Process measurements are defined.	1	2	3	4	5	6
8. Resources are allocated based on process.	1	2	3	4	5	6
9. Process outcomes are measured.	1	2	3	4	5	6
10. Departments get along well with each other.	1	2	3	4	5	6
11. In this business unit, it is easy to talk with virtually anyone you need to, regardless of rank or position.	1	2	3	4	5	6

IN OUR WORKPLACE:	Definitely Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Definitely Agree
12. There is ample opportunity for informal "hall talk" among individuals from different departments in this business unit..	1	2	3	4	5	6
13. In this business unit, employees from different departments feel comfortable calling each other when the need arises.	1	2	3	4	5	6
14. Managers here discourage employees from discussing work-related matters with those who are not their immediate superiors and subordinates.	1	2	3	4	5	6
15. People around here are quite accessible to those in other departments.	1	2	3	4	5	6
16. Communications from one department to another are expected to be routed through "proper channels".	1	2	3	4	5	6
17. managers in my department can easily schedule meetings with managers in other departments.	1	2	3	4	5	6
18. People in this business unit are genuinely concerned about the needs and problems of each other.	1	2	3	4	5	6
19. A team spirit pervades all ranks in this business unit.	1	2	3	4	5	6
20. Working for this business unit is like being a part of a family.	1	2	3	4	5	6
21. People in this business unit feel emotionally attached to each other.	1	2	3	4	5	6
22. People in this business unit feel like they are "in it together"..	1	2	3	4	5	6
23. This business unit has an "esprit de corps"..	1	2	3	4	5	6

SECTION 2: Please indicate to what extent the following statements you agree with. (1=Definitely Disagree, 2=Disagree, 3=Somewhat Disagree, 4=Somewhat Agree, 5= Agree, 6=Definitely Agree)

IN OUR WORKPLACE:	Definitely Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Definitely Agree
1. There is interdepartmental conflict in this business unit.	1	2	3	4	5	6
2. When members of several departments get together, tensions frequently run high.	1	2	3	4	5	6
3. People in one department generally dislike interacting with those from other departments	1	2	3	4	5	6
4. Employees from different departments feel that the goals of their respective departments are in harmony with each other.	1	2	3	4	5	6
5. Protecting one's departmental turf is considered to be a way of life in this business unit.	1	2	3	4	5	6
6. Goals of different departments are not congruent.	1	2	3	4	5	6

SECTION 3: To what extent does your team actively work to do the following statements? (1=Never, 6=Always)

IN OUR TEAM:	Never					Always
1. Regularly monitor how well we are meeting our team goals	1	2	3	4	5	6
2. Use clearly defined metrics to assess our progress	1	2	3	4	5	6
3. Seek timely feedback from stakeholders (e.g., customers, top management, other organizational units) about how well we are meeting our goals	1	2	3	4	5	6
4. Know whether we are on pace for meeting our goals	1	2	3	4	5	6
5. Let team members know when we have accomplished our goals	1	2	3	4	5	6
6. Monitor and manage our resources (e.g., financial, equipment, etc.)	1	2	3	4	5	6
7. Monitor important aspects of our work environment (e.g., inventories, equipment and process operations, information flows)	1	2	3	4	5	6
8. Monitor events and conditions outside the team that influence our operations	1	2	3	4	5	6
9. Ensure the team has access to the right information to perform well	1	2	3	4	5	6
10. Manage our personnel resources	1	2	3	4	5	6
11. Develop standards for acceptable team member performance	1	2	3	4	5	6
12. Balance the workload among our team members	1	2	3	4	5	6
13. Assist each other when help is needed	1	2	3	4	5	6
14. Inform team members if their work does not meet standards	1	2	3	4	5	6
15. Seek to understand each other's strengths and weaknesses	1	2	3	4	5	6
16. Communicate well with each other	1	2	3	4	5	6
17. Smoothly integrate our work efforts	1	2	3	4	5	6
18. Coordinate our activities with one another	1	2	3	4	5	6
19. Re-establish coordination when things go wrong	1	2	3	4	5	6
20. Have work products ready when others need them	1	2	3	4	5	6

SECTION 4: To what extent does your team actively work to do the following statements? (1=Never, 6=Always)

IN OUR TEAM :	Never					Always
1. Deal with personal conflicts in fair and equitable ways	1	2	3	4	5	6
2. Show respect for one another	1	2	3	4	5	6
3. Maintain group harmony	1	2	3	4	5	6
4. Work hard to minimize dysfunctional conflict among members	1	2	3	4	5	6
5. Encourage healthy debate and exchange of ideas	1	2	3	4	5	6
6 Take pride in our accomplishments	1	2	3	4	5	6
7. Develop confidence in our team's ability to perform well	1	2	3	4	5	6
8. Encourage each other to perform our very best	1	2	3	4	5	6
9. Stay motivated, even when things are difficult	1	2	3	4	5	6
10. Reward performance achievement among team members	1	2	3	4	5	6
11. Share a sense of togetherness and cohesion	1	2	3	4	5	6
12. Manage stress	1	2	3	4	5	6
13. Keep a good emotional balance in the team	1	2	3	4	5	6
14. Keep each other from getting overly emotional or frustrated	1	2	3	4	5	6
15. Maintain positive work attitudes	1	2	3	4	5	6

SECTION 5: To what extent does your team actively work to do the following statements? (1=Never, 6=Always)

IN OUR TEAM:	Never					Always
1. Our team performs effectively in terms of its own productive output.	1	2	3	4	5	6
2. Our team contributes to the effectiveness of the larger business unit of which it is a part.	1	2	3	4	5	6
3. Our productive output meets the standards of <i>quantity</i> of people who receive, review and/or use that output.	1	2	3	4	5	6
4. Our productive output meets the standards of <i>quality</i> of people who receive, review and/or use that output.	1	2	3	4	5	6
5. Our productive output meets the standards of <i>timeliness</i> of people who receive, review and/or use that output.	1	2	3	4	5	6
6. Our team enhances the capability of members to work together interdependently in the future.	1	2	3	4	5	6
7. In our team, the development and need satisfaction of the group's members are met.	1	2	3	4	5	6

SECTION 6: Please enter your personal information.

Gender: Male\_\_\_\_ Female\_\_\_\_

Age: \_\_\_\_\_

Number of employees in your team: \_\_\_\_\_

Tenure in Company: \_\_\_\_\_

Full-time experience in your company (year): \_\_\_\_\_

Company size (number of employees): \_\_\_\_\_

Education Level: Primary School\_\_\_\_ Middle School\_\_\_\_ High School\_\_\_\_ University\_\_\_\_ Graduate\_\_\_\_

Total full-time experience (year): \_\_\_\_\_

Please make sure that you left no unanswered questions.

Thank you for your time and interest in my study.

## Appendix B. Questionnaire in Turkish

### TAKIMLARDA SÜREÇLERE YÖNELİM ANKETİ

Bu araştırma, Boğaziçi Üniversitesi İşletme Bölümü Doktora Öğrencisi Meral Dülger'in doktora tezi kapsamında yürütülmektedir. Çalışma, bireylerin yaptıkları işlerin ne gibi süreçlerin parçası olduğunu ne kadar görebildiklerini ve bunu ekip ortamına ne derecede taşıdıklarını değerlendirmek için tasarlanmıştır. Bu amaç çerçevesinde hizmet sektöründe faaliyet gösteren ve ekip ortamında çalışan kişilerden veri toplanması hedeflenmektedir. Bulgular genel olarak değerlendirilmek üzere sayısal veriye çevrilecek olup, kişisel bilgiler kesinlikle hiçbir üçüncü şahıs ile paylaşılmayacaktır. Sonuçların anlamlı çıkması için lütfen soruları dikkatle, dürüstçe ve eksiksiz olarak cevaplayınız.

**DİKKAT:** Anket 6 bölümden oluşmaktadır, lütfen her bölümdeki soruları cevapladığınızdan emin olunuz.

**BÖLÜM 1:** Lütfen aşağıdaki ifadelere ne derecede katıldığınızı ölçek üzerinde işaretleyerek belirtiniz. (1=Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Pek Katılmıyorum, 4=Biraz Katılıyorum, 5= Katılıyorum, 6=Kesinlikle Katılıyorum)

İŞ YERİMİZDE:	Kesinlikle Katılmıyorum	Katılmıyorum	Pek Katılmıyorum	Biraz Katılıyorum	Katılıyorum	Kesinlikle Katılıyorum
1. Çalışanlarımız yaptıklarını birbiriyle bağlantılı bir işler zinciri olarak görür.	1	2	3	4	5	6
2. İşlerin birbirleriyle bağlantıları yeterli derecede tanımlandığından şirketteki çalışanlar süreçlerin nasıl işlediğini bilir.	1	2	3	4	5	6
3. Yapılan işler çok yönlüdür.	1	2	3	4	5	6
4. Yapılan işler rutin değildir.	1	2	3	4	5	6
5. İşlerini yaparken çalışanlar sürekli olarak yeni şeyler öğrenirler.	1	2	3	4	5	6
6. İşyerimizde süreçlerin (birbirleriyle bağlantılı işlerin) ne ölçüde başarılı olduğu değerlendirilir.	1	2	3	4	5	6
7. Süreçleri (birbirleriyle bağlantılı işleri) ölçen kriterler belirlenmiştir.	1	2	3	4	5	6
8. İş yapmak için gereken kaynaklar süreçlere (birbirleriyle bağlantılı işlere) göre dağıtılır.	1	2	3	4	5	6
9. Süreçlerin (birbirleriyle bağlantılı işlerin) başarı hedefleri ortaya konulmuştur.	1	2	3	4	5	6
10. Bu işyerinde bölümler birbiriyle iyi geçinir.	1	2	3	4	5	6
11. Bu işyerinde ihtiyacımız olduğunda seviye veya görev gözetmeksizin herkesle kolayca konuşabiliriz.	1	2	3	4	5	6

İŞ YERİMİZDE:	KESİNİLE KATILIM YERİ					
	Kesinlikle Katılmıyorum	Katılmıyorum	Pek Katılmıyorum	Biraz Katılıyorum	Katılıyorum	Kesinlikle Katılıyorum
12. Bu iş yerinde değişik bölümlerde çalışanların birbirleriyle rahat bir şekilde konuşma imkânı mevcuttur.	1	2	3	4	5	6
13. Gerektiğinde, farklı bölümlerdeki çalışanlar birbirlerini rahatça arayabilirler.	1	2	3	4	5	6
14. Yöneticiler çalışanların iş ile ilgili konuları üstleri veya altları dışında çalışanlarla tartışmalarını uygun görmezler.	1	2	3	4	5	6
15. Diğer bölümlerdeki çalışanlar bu bölümdeki çalışanlara oldukça kolay bir şekilde erişebilirler.	1	2	3	4	5	6
16. Bölümler arası iletişimin "resmi yollar" aracılığıyla kurulması beklenir.	1	2	3	4	5	6
17. Değişik bölümlerdeki müdür yardımcılarını kendi aralarında kolayca toplantı ayarlayabilirler.	1	2	3	4	5	6
18. İş yerimizdeki çalışanlar birbirlerinin ihtiyaç ve problemleriyle yakından ilgilenirler.	1	2	3	4	5	6
19. İş yerimizde her düzeyde bir "takım ruhu" içimize işlemiştir.	1	2	3	4	5	6
20. İş yerimizde çalışmak ailenin bir parçası olmak gibidir.	1	2	3	4	5	6
21. İş yerimizde çalışanlar birbirlerine duygusal olarak bağlıdırlar.	1	2	3	4	5	6
22. İş yerimizde çalışanlar bu iş için bir bütün olduklarını düşünürler.	1	2	3	4	5	6
23. İş yerimizde "birlikte çalışma ruhu" vardır.	1	2	3	4	5	6

BÖLÜM 2: Lütfen aşağıdaki ifadelere ne derecede katıldığınızı ölçek üzerinde işaretleyerek belirtiniz. (1=Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Pek Katılmıyorum, 4=Biraz Katılıyorum, 5= Katılıyorum, 6=Kesinlikle Katılıyorum)

İŞ YERİMİZDE:	Kesinlikle Katılmıyorum	Katılmıyorum	Pek Katılmıyorum	Biraz Katılıyorum	Katılıyorum	Kesinlikle Katılıyorum
1. Bu iş yerinde bölümler arası anlaşmazlık olur.	1	2	3	4	5	6
2. Birkaç bölümden farklı kişiler bir araya geldiğinde genellikle gerilim artar.	1	2	3	4	5	6
3. Bir bölümdeki çalışanlar genellikle diğer bölüm çalışanlarıyla etkileşim içinde olmaktan hoşlanmazlar.	1	2	3	4	5	6
4. Değişik bölümlerdeki çalışanlar kendi bölüm hedeflerinin diğer bölüm hedefleri ile uyumlu olmadığını düşünürler.	1	2	3	4	5	6
5. Bölümler birbirlerinin işine karışmazlar.	1	2	3	4	5	6
6. Farklı bölümlerin hedefleri birbirleriyle bağdaşmaz.	1	2	3	4	5	6

BÖLÜM 3: İçinde bulunduğunuz ekip (takım) aşağıdaki ifadelerin gerçekleşmesi için ne kadar etkin olarak çalışıyor?  
(1=Hiçbir Zaman, 6=Her Zaman)

TAKIMIMIZDA:	Hiçbir Zaman					Her Zaman
1. Ekip/Takım hedeflerimize ne ölçüde ulaştığımızın düzenli olarak gözden geçirilmesi	1	2	3	4	5	6
2. Kaydettiğimiz aşamaları değerlendirmek için net ölçülerin kullanılması	1	2	3	4	5	6
3. Müşteriler, üst yönetim, diğer birimler gibi ilgili gruplardan hedeflerimize ne ölçüde ulaştığımız hakkında düzenli geribildirim alınması	1	2	3	4	5	6
4. Zamanında hedeflerimize ulaşıp ulaşmadığımızın bilinmesi	1	2	3	4	5	6
5. Hedeflerimize ulaştığımızda ekip/takım üyelerinin bilgilendirilmesi	1	2	3	4	5	6
6. Finansal veya donanım gibi kaynaklarımızın gözden geçirilmesi ve yönetilmesi	1	2	3	4	5	6
7. Stok, donanım ve süreç faaliyetleri, bilgi akışı gibi çalışma ortamımızın önemli yönlerinin gözden geçirilmesi	1	2	3	4	5	6
8. Ekip/Takım dışında gelişerek faaliyetlerimizi etkileyen olay ve koşulların gözden geçirilmesi	1	2	3	4	5	6
9. İyi iş çıkarmak için ekibin/takımın doğru bilgi kaynaklarına erişiminin sağlanması	1	2	3	4	5	6
10. Ekibin insan kaynaklarının yönetilmesi	1	2	3	4	5	6
11. Ekip/Takım üyelerinin iş başarısı (performans) ile ilgili kabul edilebilir standartların geliştirilmesi	1	2	3	4	5	6
12. İş yükünün ekip/takım üyeleri arasında dengelenmesi	1	2	3	4	5	6
13. Gerektiğinde diğerlerine yardım edilmesi	1	2	3	4	5	6
14. Yaptıkları işin standartların altında kalması durumunda ekip/takım üyelerinin bilgilendirilmesi	1	2	3	4	5	6
15. Birbirimizin güçlü ve zayıf taraflarının anlaşılmaya çalışılması	1	2	3	4	5	6
16. Birbirimizle etkin iletişim kurmaya çalışılması	1	2	3	4	5	6
17. Emeklerimizin akıcı bir şekilde birleştirilmesi	1	2	3	4	5	6
18. Eylemlerimizin birbiriyle uyumlu hale getirilmesi (koordinasyon)	1	2	3	4	5	6
19. İşler istenen yönde gitmediğinde tekrardan uyumlu hale getirilebilmesi	1	2	3	4	5	6
20. Başkalarının ihtiyaç duymasında halindeki ekibimizin/takımımızın ürünlerinin paylaşılması	1	2	3	4	5	6

BÖLÜM 4: İçinde bulunduğunuz ekip (takım) aşağıdaki ifadelerin gerçekleşmesi için ne kadar etkin olarak çalışıyor?  
(1=Hiçbir Zaman, 6=Her Zaman)

TAKIMIMIZDA:	Hiçbir Zaman					Her Zaman
1. Kişisel anlaşmazlıklarının adil ve tarafsız bir şekilde ele alınması	1	2	3	4	5	6
2. Birbirimize saygı gösterilmesi	1	2	3	4	5	6
3. Grup uyumunun sağlanması	1	2	3	4	5	6
4. Görev yapmayı sekteye uğratan anlaşmazlıkların en aza indirilmesi için çalışılması	1	2	3	4	5	6
5. Sağlıklı bir tartışma ve fikir alışverişi ortamının teşvik edilmesi	1	2	3	4	5	6
6. Başarılarımızdan gurur duyulması	1	2	3	4	5	6
7. Ekibimizin/Takımımızın iyi iş çıkarabileceğine ilişkin güven oluşturulması	1	2	3	4	5	6
8. Üst düzeyde verim sağlamak için birbirimizin yüreklendirilmesi	1	2	3	4	5	6
9. İşler zorken bile hevesin ve inancın devam ettirilmesi	1	2	3	4	5	6
10. Ekip/Takım üyeleri arasında başarının ödüllendirilmesi	1	2	3	4	5	6
11. Birliklilik ve bağlılık duygusunun paylaşılması	1	2	3	4	5	6
12. Stres ile başa çıkılması	1	2	3	4	5	6
13. Ekipte/Takımda iyi bir duygusal denge tutturulması	1	2	3	4	5	6
14. Birbirimizin gereğinden fazla duygusal veya sinirli hale gelmesini engellenmesi	1	2	3	4	5	6
15. İşe karşı olumlu tutumların korunması	1	2	3	4	5	6

BÖLÜM 5: İçinde bulunduğunuz ekip (takım) için aşağıdaki ifadelere ne derecede katıldığınızı ölçek üzerinde işaretleyerek belirtiniz. (1=Hiçbir Zaman, 6=Her Zaman)

TAKIMIMIZDA:	Hiçbir Zaman					Her Zaman
1. Ekibimiz/Takımımız kendi ürettiği ürün ve hizmetler için etkin olarak çalışır.	1	2	3	4	5	6
2. Ekibimiz/Takımımız parçası olduğu iş yeri ve/veya birimin verimlilik ve başarısı için çalışır.	1	2	3	4	5	6
3. Ekibimizin/Takımımızın ürettiği ürün ve hizmetler onları alan, gözden geçiren ve/veya kullanan kişilerin <u>miktar</u> yönünden talep ve ölçülerini karşılar.	1	2	3	4	5	6
4. Ekibimizin/Takımımızın ürettiği ürün ve hizmetler onları alan, gözden geçiren ve/veya kullanan kişilerin <u>kalite</u> yönünden talep ve ölçülerini karşılar.	1	2	3	4	5	6
5. Ekibimizin/Takımımızın ürettiği ürün ve hizmetler onları alan, gözden geçiren ve/veya kullanan kişilerin <u>zamanında teslim</u> yönünden talep ve ölçülerini karşılar.	1	2	3	4	5	6
6. Ekibimiz/Takımımız gerektirdiğinde üyelerinin birlikte ve dayanışma içinde çalışma kapasitesini artıracak donanıma sahiptir.	1	2	3	4	5	6
7. Ekip/Takım içindeki üyelerin kişisel gelişimleri ve ihtiyaçlarının karşılanması iyi düzeydedir.	1	2	3	4	5	6

BÖLÜM 6: Lütfen kişisel bilgilerinizi giriniz.

Cinsiyetiniz: Erkek\_\_\_\_ Kadın\_\_\_\_

Yaşınız: \_\_\_\_\_

Çalıştığınız ekip/takım kaç çalışandan oluşuyor: \_\_\_\_\_

Şirketteki Pozisyonunuz: \_\_\_\_\_

Bulduğunuz kurumda tam zamanlı iş tecrübeniz (yıl sayısı): \_\_\_\_\_

İş yerinizin büyüklüğü (kişi sayısı): \_\_\_\_\_

Eğitim Seviyeniz: İlk Okul\_\_\_\_ Orta Okul\_\_\_\_ Lise\_\_\_\_ Üniversite (Lisans)\_\_\_\_ Master/Doktora\_\_\_\_

Toplam tam zamanlı iş tecrübeniz (yıl sayısı): \_\_\_\_\_

Lütfen eksik soru bırakmadığınızdan emin olunuz.

Araştırmama gösterdiğiniz ilgi ve ayırdığınız zaman için çok teşekkür ederim.

Appendix C. Reliability Statistics for the Constructs in the Study

		Cronbach's Alpha	Cronbach's Alpha if Item Deleted
	Business Process Orientation	.806	
1	The average employee views the business as a series of linked processes.		.794
2	The business processes are sufficiently defined so that most people in the organization know how they work.		.792
3	Jobs are usually multidimensional and not just simple tasks.		.793
4	Jobs are usually not routine.		.802
5	People are constantly learning new things on the job.		.793
6	Process performance is measured in your organization.		.791
7	Process measurements are defined.		.791
8	Resources are allocated based on process.		.791
9	Specific process performance goals are in phase.		.792
10	Most departments in this business do not get along well with each other.*		.793
11	When members of several departments get together, tensions frequently run high.		.790
12	People in one department generally dislike interacting with those from other departments.		.793
13	Employees from different departments feel that the goals of their respective departments are in harmony with each other.		.795
14	Protecting one's departmental turf is considered to be a way of life in this business unit.		.792
15	The objectives pursued different departments are incompatible with each other.		.805
16	There is little or no interdepartmental conflict in this business unit.		.794
17	In this business unit, it is easy to talk with virtually anyone you need to, regardless of rank or position.		.861
18	There is ample opportunity for informal "hall talk" among individuals from different departments in this business unit.		.791
19	In this business unit, employees from different departments feel comfortable calling each other when the need arises.		.792

		Cronbach's Alpha	Cronbach's Alpha if Item Deleted
20	Managers here discourage employees from discussing work-related matters with those who are not their immediate superiors and subordinates.*		.796
21	People around here are quite accessible to those in other departments.		.794
22	Communications from one department to another are expected to be routed through "proper channels"		.791
23	Junior managers in my department can easily schedule meetings with junior managers in other departments.		.793
24	People in this business unit are genuinely concerned about the needs and problems of each other.*		.819
25	A team spirit pervades all ranks in this business unit.		.816
26	Working for this business unit is like being a part of a family.		.812
27	People in this business unit feel emotionally attached to each other.		.812
28	People in this business unit feel like they are "in it together".		.807
29	This business unit has an "esprit de corps".		.813
	Action Processes	.936	
1	Regularly monitoring how well we are meeting our team goals*		.933
2	Using clearly defined metrics to assess our progress		.932
3	Seeking timely feedback from stakeholders (e.g. customers, top management, other organizational units) about how well we are meeting our goals		.933
4	Knowing whether we are on pace for meeting our goals		.932
5	Letting team members know when we have accomplished our goals		.932
6	Monitoring and managing our resources (e.g., financial, equipment, etc.)		.933
7	Monitoring important aspects of our work environment (e.g. inventories, equipment and process operations, information flows)*		.932
8	Monitoring events and conditions outside the team that influence our operations*		.931
9	Ensuring the team has access to the right information to perform well		.930
10	Managing our personnel resources		.941

		Cronbach's Alpha	Cronbach's Alpha if Item Deleted
11	Developing standards for acceptable team member performance		.931
12	Balancing the workload among our team members		.931
13	Assisting each other when help is needed		.934
14	Informing team members if their work does not meet standards		.933
15	Seeking to understand each other's strengths and weaknesses		.932
16	Communicate well with each other?		.931
17	Smoothly integrating our work efforts		.931
18	Coordinating our activities with one another		.933
19	Re-establishing coordination when things go wrong		.932
20	Having work products ready when others need them		.933
	Interpersonal Processes	.933	
1	Dealing with personal conflicts in fair and equitable ways		.931
2	Showing respect for one another		.929
3	Maintaining group harmony		.928
4	Working hard to minimize dysfunctional conflict among members		.930
5	Encouraging healthy debate and exchange of ideas		.928
6	Taking pride in our accomplishments		.929
7	Develop confidence in our team's ability to perform well		.929
8	Encouraging each other to perform our very best*		.927
9	Staying motivated, even when things are difficult		.927
10	Rewarding performance achievement among team members		.935
11	Sharing a sense of togetherness and cohesion*		.926
12	Managing stress		.928
13	Keeping a good emotional balance in the team		.928
14	Keeping each other from getting overly emotional or frustrated		.927
15	Maintaining positive work attitudes		.927
	Team Efficiency and Performance	.829	
1	The extent to which team performs effectively in terms of its own productive output.		.802
2	The extent to which it contributes to the effectiveness of the larger business unit of which it is a part		.796

		Cronbach's Alpha	Cronbach's Alpha if Item Deleted
3	The extent to which the group's productive output meets the standards of quantity to people who receive, review and/or use that output.		.798
4	The extent to which the group's productive output meets the standards of quality to people who receive, review and/or use that output.		.807
5	The extent to which the group's productive output meets the standards of timeliness to people who receive, review and/or use that output.		.815
6	The degree to which the team enhances the capability of members to work together interdependently in the future.		.810
7	The development and need satisfaction of the group's members.		.816

\*These items were deleted

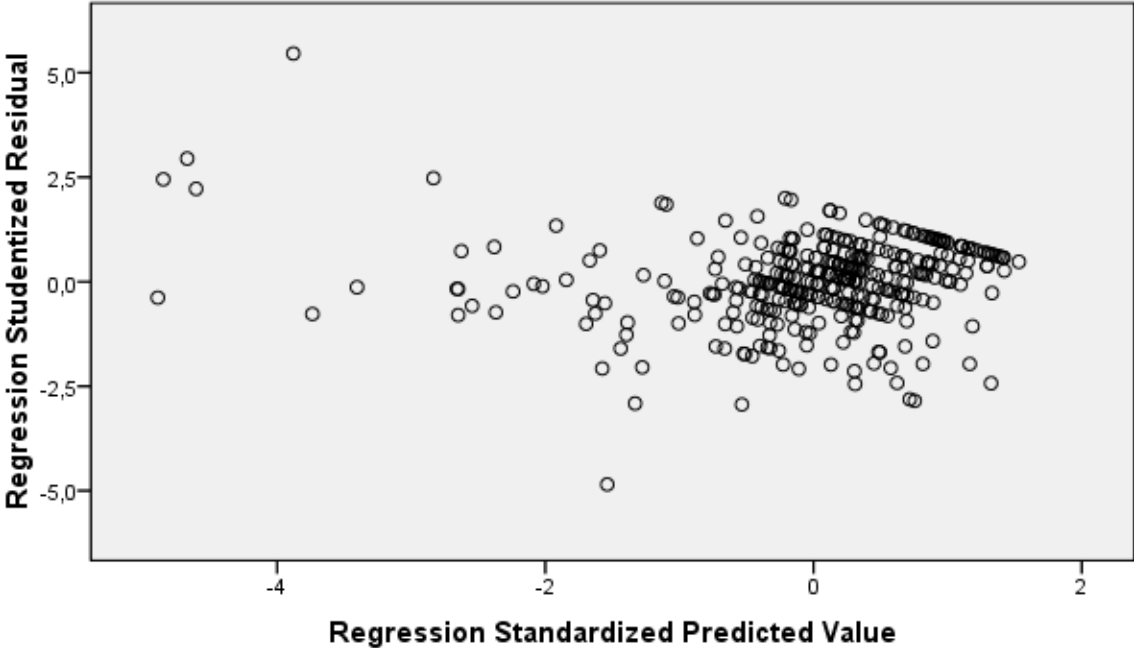
Appendix D. Assessment of Normality

	Skewness		Kurtosis		Kolmogorov-Smirnov	
	Statistic	z value	Statistic	z value	Statistic	Significance
BPO	-,112	-,882	-,278	-1,096	,058	,005
Action Processes	-1,829	-14,340	4,872	19,156	,151	,000
Interpersonal Processes	-2,195	-17,215	7,798	30,660	,149	,000
Team Efficiency and Performance	-,811	-6,367	1,077	4,239	,103	,000

Appendix E. Null Plot of Residuals

Scatterplot

Dependent Variable: TeamEfficiencyPerformance



Appendix F. Factor Loadings of Business Process Orientation

Items	Process Job Design and Communication	Esprit des Corps	Interdepartmental Conflict	Process Jobs and Process Views	Interdepartmental Correctedness
Learning new things on the job	0,633				
Measuring process performance	0,682				
Defined process metrics	0,646				
Allocating resources based on process	0,676				
Measuring process outcomes	0,610				
Ease of talking to anyone regardless of rank or position	0,730				
Opportunity for informal "hall talk" among individuals from different departments	0,756				
Comfort of calling each other from different departments	0,756				
Being accessible to other departments	0,665				
Ease of junior managers from different departments to schedule meetings	0,689				
Pervading team spirit in all the ranks		0,693			
Feeling as if being a part of the family		0,600			
Feeling emotionally attached to one another		0,671			
Feeling of being "in it together"		0,746			
Pervading "esprit de corps"		0,743			
Departments getting along with each other		0,517			

Items	Process Job Design and Communication	Esprit des Corps	Interdepartmental Conflict	Process Jobs and Process Views	Interdepartmental Correctedness
High tension when members of several departments get together			0,742		
Disliking to interact people from different departments			0,817		
Employees thinking that goals of different departments are not in harmony			0,810		
Protecting departmental turf			0,601		
Departments pursuing incongruent goals			0,686		
Viewing the business as a series of linked processes				0,703	
Knowing how business processes work				0,668	
Multidimensional jobs				0,622	
Non-routine jobs				0,623	
Communicating from one department to another through “proper channels”					0,738
Eigenvalue	10,20	2,63	1,43	1,27	1,09
Variance (%)	39,26	10,12	5,50	4,90	4,20
Cumulative Variance (%)	39,26	49,38	54,88	59,78	63,98

Appendix G. Factor Loadings of Team Action Processes

Items	Team Work and Coordination	Goal Achievement and Resources
Knowing whether we are on pace for meeting our goals	0,573	
Balancing the workload among team members	0,683	
Assisting each other when help is needed	0,660	
Informing team members if their work does not meet standards	0,570	
Seeking to understand each other's strengths and weaknesses	0,698	
Communicating efficiently	0,710	
Integrating work efforts smoothly	0,778	
Coordinating activities	0,771	
Re-establishing coordination when things go wrong	0,672	
Having work products ready when others need them	0,636	
Using clearly defined metrics to assess progress		0,663
Seeking timely feedback from stakeholders about goal achievement		0,780
Letting team members know when goals are accomplished		0,634
Monitoring and managing resources		0,721
Ensuring the team has access to the right information to perform well		0,599

Items	Team Work and Coordination	Goal Achievement and Resources
Managing personnel resources		0,600
Developing standards for acceptable team member performance		0,655
	Eigenvalue 8,03	1,30
	Variance (%) 47,23	7,89
	Cumulative Variance (%) 47,23	55,12

Appendix H. Factor Loadings of Interpersonal Processes

Items	Group Harmony and Emotional Motivation	Confidence Building and Rewards
Dealing with personal conflicts in fair and equitable ways	0,640	
Showing respect for one another	0,737	
Maintaining group harmony	0,800	
Minimizing dysfunctional conflict among members	0,700	
Encouraging healthy debate and exchange of ideas	0,668	
Staying motivated, even when things are difficult	0,699	
Managing stress	0,614	
Keeping a good emotional balance in the team	0,599	
Keeping each other from getting overly emotional or frustrated	0,643	
Maintaining positive work attitudes	0,684	
Taking pride in accomplishments		0,740
Developing confidence in team's ability to perform well		0,632
Rewarding performance achievement among team members		0,841
Eigenvalue	6,76	0,96
Variance (%)	52,02	7,39
Cumulative Variance (%)	52,02	59,41

Appendix I. Factor Loadings of Team Effectiveness/Performance

Items	Team Efficiency and Performance	Team-Member Aptitude
Performing effectively in terms of team's own productive output	0,724	
Contributing to the effectiveness of the larger business unit of which it is a part	0,669	
Meeting the standards of quantity of people who receive, review and/or use team's output	0,658	
Meeting the standards of quality of people who receive, review and/or use team's output	0,711	
Meeting the standards of timeliness of people who receive, review and/or use team's output	0,787	
Enhancing the capability of members to work together interdependently in the future		0,833
The development and need satisfaction of the group's members		0,855
Eigenvalue	3,48	0,95
Variance (%)	49,84	13,62
Cumulative Variance (%)	49,84	63,46

Appendix J. Measurement Model Factor Loadings

	Business Process Orientation	Team Action Processes	Interpersonal Processes	Team Efficiency/Performance
Process Job Design and Communication	0,899			
Esprit des Corps	0,839			
Process Jobs and Process Views	0,705			
Team Work and Coordination		0,924		
Goal Achievement and Resources		0,755		
Group Harmony and Emotional Motivation			0,877	
Confidence Building and Rewards			0,755	
Team Efficiency and Performance				0,745
Team-Member Aptitude				0,704
Variance Extracted*	67.0%	71.2%	66.9%	52.4%
Construct Reliability**	0.85	0.74	0.71	0.60

\* = Variance Extracted is computed by dividing the total of all squared multiple correlations by the number of factors of a construct.

\*\* = Construct Reliability is computed by squared sum of factor loadings for each construct and the sum of the error variance terms for a construct.

## REFERENCES

- Achrol, R.S. (1991). Evolution of the marketing organization: new forms for turbulent Environments. *Journal of Marketing*, 55, 77-93.
- Ancona, D. G. & Cladwell, D. F. (1992). Bridging the boundary: external activity and performance in organizational teams. *Administrative Science Quarterly*, 37, 634-666.
- Ancona, D. & Chong, C. L. (1999). Cycles and synchrony: The temporal role of context in team behavior. *Research on Managing Groups and Teams*, 2, 33-48.
- Antoni, C. & Hertel, G. (2009). Team processes, their antecedents and consequences: Implications for different types of teamwork. *European Journal of Work and Organizational Psychology*, 18, 253-266.
- Aubé C. & Rousseau, V. (2005). Team goal commitment and team effectiveness: the role of task interdependence and supportive behaviors. *Group Dynamics: Theory, Research, and Practice*, 9, 189-204.
- Austin, J. R. (2003). Transactive memory in organizational groups: The effects of content, consensus, specialization, and accuracy on group performance. *Journal of Applied Psychology*, 88 866-878.
- Bain, P.G., Mann, L. & Pirola-Merlo, A. (2001). The innovation imperative: The relationships between team climate, innovation, and performance in research and development teams. *Small Group Research*, 32, 55-73.
- Beal, D. J., Burke, R. R. & McLendon, C. L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology*, 88, 989-1004.
- Beer, S. (1966). Decision and control: the meaning of operational research and management cybernetics. *Knowledge and Process Management*, 4, 31-36.
- Beeson, I. & Davis, C. (2000). Emergence and accomplishment in organizational change. *Journal of Organizational Change Management*, 13, 178-189.
- Belsley, D. A., Kuh, E. & Welsch, R. E. (1980). *Regression diagnostics*, New York: John Wiley and Sons.
- Black, J. & Farias, G. (1997). *Genesis of complexity cycles*. Paper presented at 8th Annual International Conference of The Society for Chaos Theory in Psychology and Life Sciences, Boston University, Boston, MA, 31 July.

- Blau, P. M. (1974). *On the nature of organizations*. USA: Wiley and Sons.
- Bliese, P. D., & Castro, C. A. (2000). Role clarity, work overload and organizational support: Multilevel evidence of the importance of support. *Work and Stress*, 14, 65-73.
- Bond, M. H. & Wing-Chun Ng, I. (2004). The depth of a group's personality resources: Impacts on group process and group performance. *Asian Journal of Social Psychology*, 7, 285–300.
- Bovasso, G. (1992). A structural analysis of the formation of a network organization. *Group & Organization Studies*, 17, 86–106.
- Briggs, J. & Peat, F.D. (1999). *Seven life lessons of chaos: timeless wisdom from the science of change*. New York, NY: HarperCollins.
- Brown, S.L. & Eisenhardt, K.M. (1997). The art of continuous change: linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 2, 1-34.
- Brown, S.L. and Eisenhardt, K.M. (1998). *Competing on the Edge* Massachusetts, USA: Harvard Business School Press.
- Bryne, B. (2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. New York, NY: Routledge Taylor and Francis Group.
- Campion, M. A., Medsker, G.J. & Higgs, A. C. (1993). Relations between work group characteristics and effectiveness-Implications for designing effective work groups. *Personnel Psychology*, 46, 823-850.
- Campion, M. A., Papper, E. M., & Medsker, G. J. (1996). Relations between work team characteristics and effectiveness: A replication and extension. *Personnel Psychology*, 49, 429–452.
- Carter, S. M. & West, M. A. (1998). Reflexivity, effectiveness, and mental health in BBC-TV production teams. *Small Group Research*, 29, 583-601.
- Chae, M. & Hill, J.S. (1997). High versus low formality marketing planning in global industries: determinants and consequences. *Journal of Strategic Marketing*, 5, 3-22.
- Chakravarthy, B. (1997). A new strategy framework for coping with turbulence. *Sloan Management Review*, 38,. 69-82.

- Checkland, P.B. (1981). *Systems thinking systems practice*. Chichester: Wiley.
- Chiocchio, F. and Essiembre, H. (2009). Cohesion and performance: A meta-analytic review of disparities between project teams, production teams, and service teams. *Small Group Research*, 40, 382-420.
- Clutterbuck, D. (2007). *Coaching the team at work*, Boston, MA: Nicholas Brealey International.
- Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23, 239-290.
- Cohen, S. G., Ledford Jr., G. E. and Spreitzer, G. M. (1996). A predictive model of self-managing work team effectiveness. *Human Relations*, 49, 643-676.
- Conner, D.R. (1998). *Leading at the edge of chaos: how to create the nimble organization*. New York, NY: John Wiley.
- Daft, R.L. (2004). *Organization theory and design*. Willard, OH: Donnelley & Sons Company.
- Dalton, G. W., Lawrence, P. R. & Lorsch, J. W. (Eds.) (1970). *Organization structure and design*. Illinois, USA: The Dorsey Press.
- Daneke, G. A. (1997). From metaphor to method: Nonlinear science and practical management. *International Journal of Organizational Analysis*, 5, 249–266.
- Day, D. V., Gronn, P. & Salas, E. (2006). Leadership in team-based organizations: On the threshold of a new era. *The Leadership Quarterly*, 17, 211–216.
- De Dreu, C. K. W., Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology*, 88, 741-749.
- DeToro, I. & McCabe, T. (1997). How to stay flexible and elude fads, *Quality Progress*, 30, 55–60.
- Drucker, P. (1995). *Managing in a time of change*. New York, USA: Truman Telley Books/Dutton.
- Dyer, J. L. (1984). Team research and team training: A state of the art review. In F. A. Muckler (Ed.), *Human factors review* (pp. 285–323). Santa Monica, CA: Human Factors Society.
- Farrell, W. (1998), *How hits happen: Forecasting predictability in a chaotic*

- marketplace*. New York, NY: Harper Business.
- Galbraith, J. R. (1973). *Designing complex organizations*. USA: Addison – Wesley Publication Company.
- Galbraith, J. R. (1977). *Organization design*. USA: Addison – Wesley Publication Company.
- Galbraith, J. R. (1994). *Competing with flexible lateral organizations*. USA: Addison – Wesley Publication Company.
- Galbraith, J. R. (1995). *Designing organizations: An executive briefing on strategy, structure and process*. California, USA: Jossey-Bass Publishers.
- Galbraith, J. R., Lawler, E. E. & associates (1993). *Organizing for the future: The new logic for managing complex organizations*. San Francisco, LA: Jossey-Bass.
- Ghisi, F.A. & Martinelli, D. P. (2006). Systemic view of interorganizational relationships: an analysis of business networks. *Systemic Practice and Action Research*, 19, 461–473.
- Ghoshal, S. & Bartlett, C. A. (1995). Changing the role of top management: beyond structure to processes. *Harvard Business Review*, 73, 86 – 96.
- Gibson, R. (Ed.). (1999). *Rethinking the future: Business, principles, competition, control, leadership, markets and the world*. United Kingdom: Nicholas Brealy Publishing.
- Gibson, J. L., Ivancevich, J. M., Donnelly, J. H., & Konopaske, R. (2009). *Organizations: Behavior, structure, process* (13th ed.). New York, NY: McGraw-Hill.
- Gilley, J. W., & Gilley, A. (2007), *Manager as coach*, Hartford, CT: Praefer.
- Gladstein, D. (1984). Groups in context: A model of task group effectiveness. *Administrative Science Quarterly*, 29, 499-517.
- Glass, N. (1996). Chaos, non-linear systems and day-to-day management. *European Management Journal*, 14, 98-105.
- Goldstein, J. (1994). *The unshackled organization: Facing the challenge of unpredictability through spontaneous reorganization*. Oregon: Productivity Press.
- Goold, M. & Campbell, A. (2002). *Designing effective organizations*. New York, NY: John Wiley and Sons.

- Griffith, T. L. & Neale M. A. (2001). Information processing in traditional, hybrid and virtual teams: from nascent knowledge to transactive memory. *Research in Organizational Behavior*, 23, 379-421.
- Haas, M. R. (2010). The double-edged swords of autonomy and external knowledge: analyzing team effectiveness in a multinational organization. *Academy of Management Journal*, 53, 989–1008.
- Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315-342). NJ: Prentice Hall, Englewood Cliffs.
- Hackman, J.R. (Ed.), (1990). *Groups that work (and those that don't): Creating conditions for effective teamwork*, California, USA: Jossey – Bass Publications.
- Hackman, J. R. (2002). *Leading teams: Setting the stage for great performances*. Boston, MA: Harvard Business School Press.
- Hackman, J. R., & Morris, C. G. (1975). Group tasks, group interaction process, and group performance effectiveness: A review and proposed integration. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 8, pp. 1-50). San Diego: Academic Press.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2010). *Multivariate data analysis*. Seventh Edition, New Jersey, USA: Pearson Prentice Hall.
- Hamel, G. & Prahalad, C. K. (1994). *Competing for the future*. Boston, MA: Harvard Business School Press.
- Hammer, M. (1990). Reengineering work: Don't automate, obliterate. *Harvard Business Review*, 64,104-112.
- Hammer M. & Champy J. (1993). *Reengineering the corporation*. London: Nicholas Brealy.
- Hammer, M. (1996). *Beyond reengineering: How the process-centered organization is changing our work and our lives*. NY, USA: HarperCollins Publishers.
- Hearn, G. & Pace, C. (2006). Value-Creating ecologies: Understanding next generation business systems”, foresight. *The Journal of Futures Studies, Strategic Thinking and Policy*; 8, 55-65.
- Hirokawa, R. Y. & Salazar, A. J. (1991). *The necessity of chimera hunting: Why group*

*communication scholars should maintain a “bottom-line” focus in group decision-making research.* Paper presented at the annual meeting of the Speech Communication Association, Atlanta.

- Hoegl, M., Weinkauff, K. & Gemuenden, H. G. (2004). Interteam coordination, project commitment, and teamwork in multiteam r&d projects : A longitudinal study. *Organization Science*, 15, 38 – 55.
- Hollenbeck, J. R., Meyer, C. J., & Ilgen, D. R. (2007). Trait configuration in self managed teams: A conceptual examination of the use of seeding for maximizing and minimizing trait variance in teams. *Journal of Applied Psychology*, 5, 883-889.
- Hoogerwerf, E. C. & Poorthuis A. M., (2002). The network multilogue: A chaos approach to organizational design. *Journal of Organizational Change Management*, 15, 382 – 390.
- Hung, R. Y. (2006). Business process management as competitive advantage: A review and empirical study. *Total Quality Management*, 17, 21–40.
- Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, J. (2005). Teams in organizations: From I-P-O models to IMO models. *Annual Review of Psychology*, 56, 517–543.
- Janz, B. D., Colquitt, J. A. & Noe, R. A. (1997). Knowledge worker team effectiveness: The role of autonomy, interdependence, team development and contextual support variables. *Personnel Psychology*, 50, 877 – 904.
- Jaworski, B.J. (1988). Toward a theory of marketing control: environmental context, control types, and consequences. *Journal of Marketing*, 52, 23-39.
- Johnson, M. W., Christensen, C. M. & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, 86, 50-59.
- Jones, C., Hesterly, W. S. & Borgatti, S. P. (1997). A General theory of network governance: Exchange conditions and social mechanisms, *Academy of Management Review*, 22, 911-945.
- Kang, H.R., Yang, H. D. & Rowley, C. (2006). Factors in team effectiveness: Cognitive and demographic similarities of software development team members. *Human Relations*, 59, 1681 – 1710.
- Kasl, E., Marsick, V. J. & Dechant, K. (1997). Teams as learners: A research-based model of team learning. *The Journal of Applied Behavioral Science*, 33, 227 – 246.

- Katzenbach, J. R., & Smith, D. K. (1993). The discipline of teams. *Harvard Business Review*, 71, 111-120.
- Katzenbach, J. R. & Smith, D. K. (1993). *The wisdom of teams: Creating the high-performance organization*. New York, USA: Harvard Business School Press.
- Keen, P. (1997). *The process edge: Creating value where it counts*. Boston, MA: Harvard Business School Press.
- Kelly, K. (1995). *Out of control: The new biology of machines, social systems and the economic world*. USA: Perseus Books.
- Kiggundu, M. N. (1981) Task interdependence and the theory of job design. *Academy of Management Review*, 6, 499-508.
- Kirkham, A. (1996). Mitel Telecom business process reengineering: notes from the leading edge. In C. Armistead & P. Rowland (Eds.) *Managing business processes: BPR and beyond* (pp. 7–20). Chichester: Wiley.
- Kirkman, B. L., Jones, R. G., & Shapiro, D. L. (2000). Why do employees resist teams? Examining the “resistance barrier” to work team effectiveness. *International Journal of Conflict Management*, 11, 74-92.
- Klein, C., DiazGranados, D., Salas, E., Le, H., Burke, C.S., Lyons, R., & Goodwin, G. F. (2009). Does team building work? *Small Group Research*, 40, 181-222.
- Konradt, U., Andreßena, P & Ellwartb, T. Self-leadership in organizational teams: A multilevel analysis of moderators and mediators. *European Journal of Work and Organizational Psychology*, 18, 322 – 346.
- Kuipers, B. S., & de Witte, M. C. (2005). Teamwork: A case study on development and performance. *International Journal of Human Resource Management*, 16, 185-201.
- Kuipers, B. S., & Stoker, J. I. (2009). Development and performance of self-managing work teams: A theoretical and empirical examination. *International Journal of Human Resource Management*, 20, 399-419.
- Lane, D. & Maxfield, R. (1996). Strategy under complexity: fostering generative relationships. *Long Range Planning*, 29, 215-31.
- Larson, C. E., & LaFasto, F. M. J. (1989). *Teamwork: What must go right/what can go wrong*. CA: Sage, Thousand Oaks.
- Lawler III, E. E., (1994). From job-based to competency-based organizations. *Journal of Organizational Behavior*, 15, 3-15.

- Lawrence, P. R. & Lorsch, J. W. (1969). *Developing organizations: Diagnosis and action*. Reading, MA: Addison – Wesley Publishing Company.
- Leavitt, H. J. (1975). Suppose we took groups seriously... In E. L. Cass & G. G. Zimmer (Eds.), *Men and work in society; A report on the symposium held on the occasion of the 50th anniversary of the original Hawthorne studies*. (pp. 67-77). New York, NY: Van Nostrand Reinhold.
- LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E. & Saul, J. R. (2008). A meta-analysis of teamwork processes: Tests of a multidimensional model and relationships with team effectiveness criteria. *Personnel Psychology*, 61, 273-308.
- Loewen, J. (1997). *The power of strategy: A practical guide for south african managers*. Zebra: Sandton.
- MacCallum, R. C., Roznowski, M., & Necowitz, L. B. (1992). Model modifications in covariance structure analysis: The problem of capitalization on chance. *Psychological Bulletin*, 111, 490–504.
- Marks, M. A., Mathieu, J. E. & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, 26, 356-376.
- Marks, M. A., DeChurch, L. A., Mathieu, J. E., Panzer, F. J. & Alonso, A. (2005). Teamwork in multiteam systems. *Journal of Applied Psychology*, 90, 964-971.
- Mason, R.B. (2007). The external environment's effect on management and strategy: A complexity theory approach. *Management Decision*, 45, 10-28.
- Mathieu, J. E., Gilson, L. L. & Ruddy, T. M. (2006). Empowerment and team effectiveness: an empirical test of an integrated model. *Journal of Applied Psychology*, 91, 97–108.
- Mathieu, J. E. & Schulze, W. (2006). The influence of team knowledge and formal plans on episodic team process–performance relationships. *Academy of Management Journal*, 49, 605–619.
- McAdam, R. (1996). An integrated business improvement methodology to refocus business improvement efforts. *Journal of Business Process Reengineering and Management*, 2, 63–71.
- McGrath, J. E. (1964). *Social psychology: A brief introduction*. New York, NY: Holt, Rinehart & Winston.
- McGrath, J. E. (1984). *Groups: Interaction and performance*, NJ: Prentice-Hall,

Englewood Cliffs.

- McGrath, R. G. (2001). Exploratory learning, innovative capacity, and managerial oversight. *Academy of Management Journal*, 44, 118-131.
- Medcof, J. W. (2001). Resource-based strategy and managerial power in networks of internationally dispersed technology units. *Strategic Management Journal*, 22, 999 - 1012.
- Merry, U. (1995). *Coping with uncertainty: Insights from the new sciences of chaos, self-organization, and complexity*. Westport, CT: Praeger.
- Miles, R.E. & Snow, C.C. (1992). Causes of failures in network organizations. *California Management Review*, 34, 53-72.
- Miles, R.E. & Snow, C. C. (1995). The new network firm: A spherical structure built on a human investment philosophy. *Organizational Dynamics*, 23, pp. 5-18.
- Miles, R.E. Snow, C.C., Mathews, J.A., Miles, G & Coleman Jr., H.J (1997). Organizing in the knowledge age: Anticipating the cellular form. *The Academy of Management Executive*, 11, pp. 7-20.
- Mintzberg, H. (1979). *The structuring of organizations*. NJ, USA: Prentice-Hall, Englewood Cliffs.
- Mintzberg, H. & Van der Hayden, L. (1999). Organigraphs: Drawing how companies really work. *Harvard Business Review*, 77, 87 – 94.
- Mohrman, S. A. & Cummings, T. G. (1989). *Self-Designing organizations: Learning how to create high performance*. USA: Addison – Wesley Publishing.
- Mohrman, S. A., Cohen, S. G. & Mohrman Jr., A. M. (1995). *Designing team-based organizations: New forms for knowledge work*. California, USA: Jossey-Bass Publishers.
- Mohrman, S. A., Galbraith, J. R., Lawler III, E. E. & Associates (1998). *Tomorrow's organization: Crafting winning capabilities in a dynamic world*. California, USA: Jossey – Bass Publishers.
- Monge, P.R. (1990). Theoretical and analytical issues in studying organizational processes. *Organizational Science*, 1, 23–34.
- Nadler, D. A., Gerstein, M. S., Shaw, R. B. & Associates (1992). *Organizational architecture: Designs for changing organizations*. California, USA: Jossey – Bass Publishers.

- Nielsen, T. M., Hrivnak, G. A. & Shaw, M. (2009). Organizational citizenship behavior and performance a meta-analysis of group-level research. *Small Group Research*, 40, 555-577.
- Normann, R. & Ramires, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review*, 71, 65-77.
- Ostroff, F. (1999). *The horizontal organization*. New York: Oxford University Press.
- Pashtenko, V. H., Roy, M. H., & Dugal, S. S. (2000). The relationship between transitory organizational structures and non-linear environments. *Management Decision*, 38, 118 – 129.
- Peters, E.E. (1999). *Patterns in the dark: Understanding risk and financial crisis with complexity theory*. New York, NY: Wiley.
- Peters, T. (1987). *Thriving on chaos: Handbook for a management revolution*. New York, USA: Harper Collins Publishers.
- Pettigrew, A., Massini, S. & Numagami, T. (2000). Innovative forms of organizing in europe and japan. *European Management Journal*, 18, 259–273.
- Pfeffer, J. (1978). The micropolitics of organizations. In M. W. Meyer and Associates (Eds.), *Environments and organizations* (pp. 29 – 50). , San Francisco. CA: Jossey – Bass.
- Pfeffer, J. & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. New York, USA: Harper and Row.
- Pfeffer, J. (1998). *The human equation: Building profits by putting people first*. Cambridge, MA: Harvard Business School Press.
- Philip, A. (1999). Complexity theory and organization science. *Organization Science*, 10, 216-232.
- Piercy, N. F. & Cravens D. W. (1995). The network paradigm and the marketing organization: Developing a new management agenda. *European Journal of Marketing*, 29, 7-34.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: Free Press.

- Prendergast, G. & Berthon, P. (2000). Insights from ecology: an ecotone perspective of Marketing. *European Management Journal*, 18, 223-31.
- Quinn, J.B. (1982). Managing strategies incrementally. *Omega, The International Journal of Management Science*, 10, 613-627.
- Rivkin, J. W. & Siggelkow, N. (2003). Balancing search and stability: Interdependencies among elements of organizational design. *Management Science*; 49, 290-311.
- Robbins, S.P. (1990). *Organization theory: Structure, design and theory*, Third Edition. NJ: Prentice-Hall, Englewood Cliffs.
- Rummler, G. A. & Brache, A. P. (1995). *Improving performance: How to manage the white space on the organization chart*, Second Edition. San Francisco CA: Jossey-Bass Publishers.
- Salas, E., Cooke, N. J. & Rosen, M. A. (2008). On teams, teamwork, and team performance: Discoveries and developments. *Human Factors*, 50, 540–547.
- Sassenberg, K., Jones, K. L., & Shah, J. Y. (2007). Why some groups just feel better: The regulatory fit of group power. *Journal of Personality and Social Psychology*, 2, 249-267.
- Schreiber, C. & Carley, K. M. (2006). Leadership style as an enabler of organizational complex functioning. *Emergence: Complexity and Organization*, 8, 61-76.
- Scott, S. G. & Einstein, W. O. (2001). Strategic performance appraisal in team-based organizations: One size does not fit all. *Academy of Management Executive*, 15, 107 – 116.
- Selznick, P. (1949). *TVA and the grass roots: A study in the sociology of formal organization*. NY: Harper and Row Publishers.
- Senge, P., (1990). *The fifth discipline: The art and practice of the learning organization*. New York, USA: Doubleday Currency.
- Shrout, P. E. & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86, 420-428.
- Sinclair, A. (1992). The tyranny of a team ideology. *Organization Studies*, 13, 611-626.
- Smith, A. & Fingar, P. (2003). *Business process management: The third wave*. Florida, USA: Meghan – Kiffer Press.
- Solomon, C. M. (2001). Managing virtual teams. *Workforce*, 80, 60-78.

- Spanyi, A. (2006). *More for less: The power of process management*. Florida, USA: Meghan – Kiffer Press.
- Spector, B.A. (1999). The horizontal organization: what the organization of the future actually looks like and how it delivers value to customers. *Academy of Management Executive*, 13, 97–98.
- Stewart, G. L & Barrick, M. R. (2000). Team structure and performance: Assessing the mediating role of intrateam process and the moderating role of task type. *Academy of Management Journal*; 43, 135 – 148.
- Stewart, G. L. (2006). A meta-analytic review of relationships between team design features and team performance. *Journal of Management*, 32, 29-54.
- Stohr, E. A. & Zur Muehlen, M. (2008). Business process management: Impact on organizational flexibility. *Global Journal of Flexible Systems Management*, 9, 3 – 5.
- Sundstrom, E., De Meuse, K. P., & Futrell, D. (1990). Work teams: Applications and effectiveness. *American Psychologist*, 45, 120-133.
- Sundstrom, E. (1999). The challenges of supporting work team effectiveness. In Sundstrom, E. (Ed.), *Supporting work team effectiveness* (pp. 3–23). San Francisco: Jossey-Bass.
- Tannenbaum, S. I., Beard, R. L. & Salas, E. (1992). Team building and its influence on team effectiveness: An examination of conceptual and empirical developments. Issues, theory, and research in industrial/organizational psychology. In Kelley, Kathryn (Ed), (1992). *Issues, theory, and research in industrial/organizational psychology, advances in psychology*, 82 (pp. 117-153). Oxford, England: North-Holland.
- Tata, J. & Prasad, S. (2004). Team self-management, organizational structure, and judgments of team effectiveness. *Journal of Managerial Issues*, 16, 248-265.
- Thompson, J. D. (1967). *Organizations in action*. NY, USA: McGraw-Hill.
- Toffler, A. (1970). *The future shock*. NY, USA: Bantam Books.
- Ulrich, D. & Barney, J. B. (1984). Perspectives in organizations: Resource dependence, efficiency and population. *The Academy of Management Review*, 9, 471-481.
- Van der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal*, 48, 532–547.

- Vandenberg, R. J. & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices and recommendations for organizational research. *Organizational Research Methods*, 3, 4-70.
- Van Emmerik, I. H. & Brenninkmeijer, V. (2009). Deep-level similarity and group social capital: associations with team functioning. *Small Group Research*, 40, 650-669.
- Wellins, R.S., W.C. Byham, & J.M. Wilson (1991). *Empowered teams: Creating self-directed work groups that improve quality, productivity, and participation*. San Francisco, LA: Jossey-Bass Publications.
- Wellins, R. S., Byham, W. C. & Dixon, G. R. (1994). *Inside teams: How 20 world-class organizations are winning through teamwork*. California, USA: Jossey – Bass Publications.
- West, M. A. (2004). *Effective teamwork: Practical lessons from organizational leadership*. Second Edition, Malden, MA: BPS Blackwell.
- West, M. A. & Anderson, N. R. (1996). Innovation in top management teams. *Journal of Applied Psychology*, 81, 680-693.
- West, M. A., Borrill, C., & Unsworth, K. L. (1998). Team effectiveness in organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 13, pp. 1–48). Chichester, UK: Wiley.
- Wheatley, M. J. & Kellner-Rogers M. (1996). Self-organization: The irresistible future of organizing. *Strategy & Leadership*, 24, 18 – 24.
- Yee Ng, K. & Van Dyne, L. (2005). Antecedents and performance consequences of helping behavior in work groups: A multilevel analysis. *Group and Organization Management*, 30, 514-540.
- Zhou, Y. & Wnag, E. (2010). Shared mental models as moderators of team process-performance relationships. *Social Behavior and Personality*, 38, 433-444.