

## Influence of Organizational Culture on Service Provider Selection

Mehmet Yılmaz<sup>a</sup>, Dilek Yılmaz Börekçi<sup>a,†</sup>, Ali Örnek<sup>a</sup>

### ARTICLE INFO

*Yayın Bilgisi*

*Received/Başvuru*

11/02/2016

*Accepted/Kabul*

11/07/2017

*Keywords:*

Service Provider Selection  
Organizational Culture  
3PL

### ABSTRACT

Although Third Party Logistics Service Provider (3PL) selection literature mentions organizational culture's role in the development as well as in the maintenance of 3PL arrangements, there is a paucity of attempts to underline the significance of organizational culture's influence on the formation and management of 3PL relationships. In this study, the influence of different organizational cultural orientations in uncertainty avoidance, future orientation, performance orientation and paternalism dimensions on the value and the priority that the outsourcing firms give to relation-oriented and success-oriented 3PL selection criteria is investigated. High and low cultural orientation (for each dimension) groups are compared in terms of the value that they give to relation-oriented and success-oriented criteria via t-tests whereas they are compared in terms of the priority that they give to relation-oriented and success-oriented criteria via Wilcoxon rank sum tests. The study reveals that decision makers are influenced by their organizational cultures while valuing and prioritizing relation-oriented versus success-oriented 3PL selection criteria.

### 1. Introduction

Increasing requirements for infrastructural/ fixed asset investments, specialized information technology talent and competent logistics knowledge lead to progressive utilization of third-party logistics service providers (3PL) for handling non-core business processes (Jharkharia & Shankar, 2007; Bottani & Rizzi, 2006). Although service buying firms focus on their core business processes via 3PL utilization; they face problems such as inefficiencies in IT systems integration, miscommunication and incomplete contracts not detailing reciprocal responsibilities of the parties (Lieb & Randall, 1999; Lieb, Bentz & Brooks, 2005) as a consequence. To be able to preclude these kinds of problems and to achieve their goals, outsourcing firms should give importance to 3PL selection process. Since decision makers in organizations make their decisions considering multiple criteria, an analysis of the process of evaluating those criteria becomes meaningful.

A pre-case study conducted on a 3PL service provider and its thirty customers in Turkish cultural context revealed that there exist three categories of 3PL selection criteria: basic, success-oriented and relation-oriented (Yılmaz, 2012). Basic criteria are the ones that are of primary importance in general for service buying firms such as price and quality (Jharkharia & Shankar, 2007; Bottani & Rizzi, 2006, Işıklar, Alptekin & Buyukozkan, 2007). While relation-oriented criteria bring front the interactional aspects of 3PL utilization, success-oriented criteria focus on task accomplishments (Wasti, 1998). Success-oriented criteria are the ones that emphasize the task-related aspects of 3PL utilization such as flexibility, risk management, and performance management (Yılmaz, 2012). On the other hand, relation-oriented criteria are the ones that emphasize the relation related aspects of 3PL utilization such as long-term relation, trust, relatedness and compatibility.

According to Marasco (2008), organizational culture plays a significant role in the development as well as in

† Corresponding author. Tel: +90 212 473 7070/ 17795, e-mail: dborekci@istanbul.edu.tr

e-mail addresses: [m.yilmaz@hho.edu.tr](mailto:m.yilmaz@hho.edu.tr) (M. Yılmaz), [dborekci@istanbul.edu.tr](mailto:dborekci@istanbul.edu.tr) (D. Borekci), [ali.ornek@psd.com.tr](mailto:ali.ornek@psd.com.tr) (A. Örnek)

<sup>a</sup> Industrial Engineering Department, Faculty of Engineering, Istanbul University, Istanbul, Turkey

the maintenance of 3PL arrangements, yet there is a paucity of attempts to capture the implications of various culture dimensions on the formation and management of 3PL relationships. According to McKeon (1991) the most important factor for successful logistics outsourcing is to understand the culture, organizational structure and logistics strategies of each other. Bowersox and Daughtery (1990) note that one of the key factors for a successful relationship is cultural compatibility and emphasize the importance of in-depth examination of the cultural values. Carter and his colleagues (2010) showed that national cultural orientation impacts industrial procurement managers' geographical perceptions which in turn influence criteria ratings of locations.

Although several studies point to the general importance of culture on 3PL issues, there is no study to our knowledge specifically analyzing the effects of organizational culture on 3PL selection process. To bridge for this gap, the influence of organizational culture on the valuation and prioritization of 3PL selection criteria is investigated in this study. Particularly, the role of organizational culture on success-oriented versus relation-oriented selection criteria valuation and prioritization is analyzed. Since research on culture in relation to operations management issues underlines cultural dimensions performance orientation, future orientation and uncertainty avoidance as having significant influence on perceptions and behaviors (Naor, Linderman & Schroeder, 2010; Borekci, Rofcanin & Sahin, 2014) and as being most work-salient (House, Hanges, Ruiz-Quintanilla et al., 1999; Waldman et al., 2006), this study concentrates on these dimensions' influence on 3PL selection. In addition, taking into consideration the paternalistic national cultural context of the study (Aycan, 1999; Kabasakal & Bodur, 2002), organizational paternalism is also analyzed as an organizational culture dimension with possible effects on 3PL selection decisions.

The rest of the paper is organized as follows. First, a conceptual background on 3PL selection criteria and organizational culture is provided. Next, development of the research hypotheses is presented. Then, methodology and results sections are provided. In the last part, conclusion and discussion are presented with limitations and future research opportunities.

## 2. Conceptual Background

### 2.1. Third Party Logistics Service Provider (3PL) Selection Criteria

In order to evaluate third-party logistics service providers (3PL), there is an indispensable need for selection criteria determination and utilization. Although a vast majority of the criteria used in 3PL

selection is common, some of them are developed according to the specific requirements that the decision makers have in their minds (Bagchi & Virum, 1998). Bearing in mind the fact that decision makers are in some ways influenced by their organizational culture, the present paper will primarily focus on the utilization of the criteria used for the selection of service providers.

There are a number of criteria used for the selection of 3PL as presented in the literature. Although, many of them are commonly used; they are sometimes classified under different headings. Jharkharia and Shankar (2007) classify 3PL selection criteria in two levels. The first level includes compatibility, cost, quality and reputation while the second level includes long-term relationship, operational performance, financial performance, and risk management.

Işıklar et al. (2007) classify 3PL selection criteria into three groups. The first group focuses on the strategic criteria including criteria such as financial stability, comparable culture, and similar values/ goals. The second group is about the case features such as service category, price, and technical capacity. The third group focuses on logistics business including criteria such as performance and information technologies.

Rajesh and Ravi (2015) categorize supplier selection criteria in resilient supply chains as primary performance factors (quality, cost and flexibility), responsiveness (velocity and visibility), risk reduction (vulnerability, collaboration, risk awareness and continuity management), technical support (technological capability and R&D) and sustainability (safety and environmental concern).

The selection criteria used in this study, presented in Table 1, are adapted from Bottani and Rizzi (2006), Jharkharia and Shankar (2007) and the above mentioned literature. In addition, relatedness criterion, representing some kind of affinity between service buying and providing firms, is also included among the selection criteria since it was understood to be influential in the present study's cultural context in Yilmaz (2012)'s pre-case study. Criteria such as price, quality, financial power, reputation of the company are considered as the basic criteria since those criteria gets primary values and priorities regardless of the outsourcing firms' organizational cultures (Yilmaz, 2012). The criteria that are considered to be influenced by organizational culture are classified as relation-oriented and success-oriented as shown in Table 1.

**Table 1. Grouping of 3PL Selection Criteria**

<b>Basic Criteria</b>
Price
Quality
Financial power
Reputation
Market share
<b>Relation-Oriented Criteria</b>
Long-term relations
Trust
Relatedness
Compatibility
<b>Success-Oriented Criteria</b>
Breadth of service
Service experience
Risk management
Flexibility of service
Performance management

### 2.1.1. Basic Criteria

The criteria shown in this category are thought to be the basic criteria that are used in evaluation of the 3PLs by most of the service buying companies (Jharkharia & Shankar, 2007; Bottani & Rizzi, 2006; Işıklar et al., 2007; Rajesh & Ravi, 2015). The pre-case study conducted by Yılmaz (2012) confirmed that decision makers evaluate these criteria regardless of their organizational culture's influence and give these criteria the highest value and priority. Thus, in this study the authors focus on the relation-oriented and success-oriented criteria that are assumed to be varying according to the organizational culture of outsourcing companies.

### 2.1.2. Relation-Oriented Criteria

Relation orientation means importance and concern given to interactions and relations with employees, suppliers, customers and third parties (Hofstede, 2001; Wasti, 1998; Bass, 1990). Relation orientation emphasizes the relational aspects of the business encounters rather than the success related issues. Relation orientation leads to valuing positive interactions. Thus, relational criteria can be listed as compatibility, trust, long-term relations, and relatedness.

#### 2.1.2.1. Compatibility

Many scholars emphasize the importance of compatibility in identifying the probable candidates (Omar et al., 2012). The companies that have compatible values and work perceptions are thought to be better performing in relations. Compatibility of culture and values is considered as one of the key factors for successful partnership (Bowersox & Daughtery, 1990; Işıklar et al., 2007). Parallel to this line of thinking, Bottani and Rizzi (2006) indicate that

the company to be cooperated should be analyzed in-depth in terms of philosophy, loyalty, and cultural values.

#### 2.1.2.2. Trust

Trust means one party's reliance on and confidence in the other party (Moorman, Deshpande & Zaltman, 1993). While trust is one of the most essential ingredients that make long-term partnerships possible (Tate, 1996), Bowersox and Daughtery (1990) point out that lack of it is a principal factor leading to alliance failure. Information sharing between organizations is based on mutual trust (Bottani & Rizzi, 2006). Adler (2001) states that a sense of shared destiny both depends on and cultivates mutual trust.

#### 2.1.2.3. Long-term relations

It means sharing the risks and rewards between the service user and provider and not focusing on short-term goals (Mothial et al., 2012). It also helps in controlling the opportunistic behavior of providers (Jharkharia & Shankar, 2007).

#### 2.1.2.4. Relatedness

This criteria indicates the role of relations (affinity) such as citizenship, kinship, friendship; having worked in joint projects before and belonging to same club, party or society generally valued in eastern cultures (Kabasakal & Bodur, 2002) in service provider selection. Exchanges between related parties based on those kinds of similarities reflect those parties' expectations of harmony.

### 2.1.3. Success-Oriented Criteria

Success orientation means importance and concern given to task accomplishments (Hofstede, 2001; Wasti, 1998; Bass, 1990). To achieve task accomplishments via their employees, suppliers, customers and third parties; success oriented companies develop procedures and performance evaluation criteria in business conduction. Success orientation emphasizes task-related aspects of the business encounters rather than the relational aspects. If an organization values success orientation, they value successful performance. Thus, organizations that value success oriented criteria, value criteria related to tasks such as variety of services, service experience, flexibility, risk management, performance management and IT services.

#### 2.1.3.1. Breadth of service

Breadth of service expresses the capability of the provider to give logistics services ranging from transportation to warehousing, inventory management to packaging, etc. (Sink, Langley and Gibson, 1996). "The tendency to focus on core activities leads buyers to

prefer the suppliers that can offer the widest range of services and to whom the buyer can contract out all logistics processes” (Bottani & Rizzi, 2006, pp.297).

#### 2.1.3.2. Service experience

Jharkharia and Shankar (2007) state that prior experience of the provider in the user’s product line is advantageous for the user. The service “experience of the ideal provider should be well grounded in the services being provided and preferably with experience in the industry” (Bottani & Rizzi, 2006, pp.297).

#### 2.1.3.3. Flexibility of Service

It expresses provider’s capability to respond to buyer’s increasing, changing and flexible needs. According to Bottani and Rizzi (2006, pp. 298), flexible service takes into account the “possibility to renegotiate the contract agreed between partners and the likelihood of partnership failure increases when one of the partners is tied by a money losing contract”.

#### 2.1.3.4. Risk Management

Boyson et al. (1999) indicate that it is the capability of the provider to address any unforeseen problem, and it is needed to ensure the continuity of the services. Yet, Li and Shen (2012) state risk management capability as one of the indicators of contractor competitiveness. Rajesh and Ravi (2015) underlines importance of risk reduction capabilities of suppliers.

#### 2.1.3.5. Performance Management

Providers’ provision of periodic evaluation of performance enables both provider and outsourcing parties to identify the gaps in service. In logistics outsourcing the most important performance measures are on-time shipments, inventory accuracy, shipping errors, reduction in cash-to-cash cycle, logistics cost reduction, and reduction in customers’ complaints (Jharkharia & Shankar, 2007).

#### 2.1.3.6. Information Systems

It expresses the providers usage of software and hardware and the compatibility of it with the partners. Bottani and Rizzi (2006) identify information systems as both software (ERP environments, EDI networking, simulation software, vehicle routing packages, carrier loading optimization tools, consolidation packages, etc.) and hardware (servers, networking and internet/intranet connections, radio frequency devices, bar code printers and scanners, RFID, GPS satellite tracking devices, etc.). Rajesh and Ravi (2015) indicates supplier’s technological capability among the important supplier selection criteria.

## 2.2. Organizational Culture

Organizational culture is the pattern of shared mindsets, beliefs and values that shapes the organizational practices and behaviors (Schien, 1985). Drawing from this definition, it can be derived that organizational culture can distinguish organizations from one another. Research on culture in relation to operations management issues underlines cultural dimensions performance orientation, future orientation and uncertainty avoidance as having significant influence on perceptions and behaviors (Naor, Linderman & Schroeder, 2010; Borekci, Rofcanin & Sahin, 2014). Paternalism is another organizational cultural dimension that may develop between service buying and providing firms in this study’s national context. Thus, it is also analyzed in this study for its role in 3PL selection.

### 2.2.1. Uncertainty Avoidance

Uncertainty avoidance indicates the degree to which an organization avoids uncertainties by relying on norms and procedures (House et al., 2002). Uncertainty avoidant cultures have feelings of danger towards unpredictable situations (Hofstede, 1984). Predictability is the way to avoid this feeling and societies use religion, rules and technology to subside this fear (Bradac, 2001). Uncertainty avoidant cultures make decisions based on facts rather than intuition (Naor et al., 2010). Documents, reports, controls, checklists, planning systems and computer-based programs are all used to reduce uncertainties. To record all tasks carried out and to write even the meetings done orally down is also a way to do so (De Luquei & Javidan, 2004). Uncertainty avoidant organizations believe that the existence of experienced employees and experts enables their organizations to deal with uncertain events (Hofstede & Hofstede, 2005; Kull & Wacker, 2010).

### 2.2.2. Future Orientation

Future orientation is the degree to which organizations plan for and invest in the future delaying immediate gratifications (House et al., 2002; Kull & Wacker, 2010). High future orientation cultures have long term plans (Das, 1987) and focus on strategic planning (Kitchell, 1995). Cultures with high future orientation value flexibility (Kull & Wacker, 2010). Future oriented organizations “believe that their current actions will influence their future” and thus “look far into the future for assessing the effects of their current actions” (Ashkanasy et al., 2004, pp. 285).

### 2.2.3. Performance Orientation

Performance orientation dimension of the Globe Study indicates the degree that an organization encourages and rewards high and improved performance (House et al.,

2004). This dimension involves responsibility for processes and importance given to work (Javidan et al., 2004). Performance orientation has a positive relation with manufacturing performance (Naor et al., 2010). High-performance orientation ones work towards performing tasks that they know they can conduct without taking risks (Dweck & Legget, 1988; Ames & Archer, 1988). Borekci, Rofcanin and Sahin (2014) identify performance orientation of subcontractors as one potential source of variance across risky and non-risky groups.

#### 2.2.4. Paternalism

Paternalism involves two parties, acting in reciprocity terms: one is a patron who protects, helps, cares and guides the other party who is a subordinate loyal and deferent to the patron (Yılmaz Borekci, 2009). Paternalism may develop within and also among organizations. This kind of relationships enables the involved parties to exchange certain monetary, social and other types of resources (Mead, 1994). Because compliance and conformity with authority cannot be perceived as something to be done voluntarily, paternalism has always been equated with authoritarianism in the Western literature (Aycan, 2001). This study's data is from a paternalistic national cultural context (Paşa, 2000; Aycan, 2011).

### 3. Hypotheses Development and Research Model

As noted in the previous sections, organizational culture, which defines a firm's management style and shared values, is influential in all organizational levels and in decision-making processes. According to McKeon (1991) the most important factor for successful logistics outsourcing is to understand the culture, organizational structure and logistics strategies of each other. Bowersox and Daughtery (1990) has also stated that one of the critical factors for a successful relationship is cultural compatibility and emphasized the importance of in-depth examination of the cultural values.

According to Marasco (2008), organizational culture plays a significant role in the development as well as in the maintenance of 3PL arrangements. Although the influence of organizational culture on 3PL relationships is not debatable, Marasco (2008) states that there have not yet been many attempts to capture the implications of various culture dimensions on the formation and management of 3PL relationships. Marasco (2008) suggests the role of organizational culture in the formation and development of 3PL arrangements as a potential area for further researches. Sarkis and Sundarraj (2000) stated that culture has an important role when evaluating a strategic system. Since the 3PL selection process is one of the important decision-

making processes of an organization, it is expected that organizational culture is influential in this process.

Since the literature on culture in relation to operations management issues (Naor, Linderman & Schroeder, 2010; Borekci, Rofcanin & Sahin, 2014) brings forward cultural dimensions performance orientation, future orientation and uncertainty avoidance as having significant influence on perceptions and behaviors, this study concentrates on developing hypotheses accordingly. In addition, due to the cultural context of the studied country, paternalism is thought to be influential (Paşa, 2000; Aycan, 2011) and is included among the hypothesized cultural dimensions.

#### 3.1. Linking Uncertainty Avoidance to 3PL Selection

Uncertainty avoidant cultures have feelings of danger towards unpredictable situations (Hofstede, 1984). Predictability is the way to avoid this feeling (Bradac, 2001). New suppliers and short-term relations increase unpredictability. Cultures that have low uncertainty avoidance are inclined to terminate existing relationships and enter into relationships with new partners (Kale & Barnes, 1992). On the other hand, cultures that have high uncertainty avoidance give importance to predictability in their 3PL selection. They like to select related (kinship, citizenship, same society etc.) suppliers and give importance to trust to increase predictability. In addition, during long-term relations, they expect to know the other party and establish some structure and order to their interactions. Thus, it is expected that high uncertainty avoidance cultures give higher value and priority to relation-oriented criteria than low uncertainty avoidance cultures do when selecting 3PLs.

***Hypothesis 1a:*** High uncertainty avoidance cultures give higher value to relation-oriented 3PL selection criteria than low uncertainty avoidance cultures do.

***Hypothesis 1b:*** High uncertainty avoidance cultures give higher priority to relation-oriented 3PL selection criteria than low uncertainty avoidance cultures do.

Uncertainty avoidance indicates the degree to which an organization avoids uncertainties by relying on norms and procedures (House et al., 2002). Naor et al. (2010) stated that a higher degree of uncertainty avoidance can be achieved by implementing a fact-based managerial decision-making rather than relying on intuition. According to Hofstede (1984) high uncertainty avoidance cultures fear the future and do not tolerate risk easily. Predictability is the way to avoid this feeling and societies use technology to subside this fear (Bradac, 2001). Documents, reports, controls, checklists, planning systems and computer-based programs are all used to reduce uncertainties. To document all tasks carried out and to write even the

meetings done orally down is also a way to do so (De Luquei & Javidan, 2004). Hence, the level of value and priority given to success-oriented criteria by the firms that avoid from uncertainty is expected to be higher when selecting 3PLs.

**Hypothesis 2a:** *High uncertainty avoidance cultures give higher value to success-oriented 3PL selection criteria than low uncertainty avoidance cultures do.*

**Hypothesis 2b:** *High uncertainty avoidance cultures give higher priority to success-oriented 3PL selection criteria than low uncertainty avoidance cultures do.*

### 3.2. Linking Future Orientation to 3PL Selection

Future orientation is the degree to which organizations plan for and invest in the future, delaying immediate gratifications (House et al., 2002, Kull & Wacker, 2010). Long-term relationships help in controlling the opportunistic behavior of providers (Boyson et al., 1999). Therefore, it is expected that high future orientation cultures give higher value, and priority to relation-oriented criteria than low future orientation cultures do when selecting 3PLs.

**Hypothesis 3a:** *High future orientation cultures give higher value to relation-oriented 3PL selection criteria than low future orientation cultures do.*

**Hypothesis 3b:** *High future orientation cultures give higher priority to relation-oriented 3PL selection criteria than low future orientation cultures do.*

Flexibility of service provision represents a service provider's capability and flexibility to respond to buyer's increasing and changing requirements. In a turbulent environment involving continuous change, all firms must be responsive to sustain their existence. Thus, 3PLs should be able to adapt and change their service provisions according to buyers' needs. As it is noted by Kull and Wacker (2010) future-oriented firms value flexibility. In addition, 3PLs that own information systems with on-time data enable buyer firms to have access to current and true data and more accurate forecasts for the future. High future orientation cultures have long term plans (Das, 1987) and focus on strategic planning (Kitchell, 1995). Therefore, it is expected that high future orientation cultures give higher value, and priority to success-oriented criteria than low future orientation cultures do when selecting 3PLs.

**Hypothesis 4a:** *High future orientation cultures give higher value to success-oriented 3PL selection criteria than low uncertainty avoidance cultures do.*

**Hypothesis 4b:** *High future orientation cultures give higher priority to success-oriented 3PL selection criteria than low uncertainty avoidance cultures do.*

### 3.3. Linking Performance Orientation to 3PL Selection

High-performance orientation ones work towards performing tasks that they know they can conduct without taking risks (Dweck & Legget, 1988; Ames & Archer, 1988). Hence, performance oriented firms give importance to the achievement of targeted objectives by service providers, and they will treat their relations with them as long term engagements to achieve the desired performance results. Thus, it is expected that high-performance orientation cultures give higher value and priority to relation-oriented criteria than low-performance orientation cultures do when selecting 3PLs.

**Hypothesis 5a:** *High-performance orientation cultures give higher value to relation-oriented 3PL selection criteria than low-performance orientation cultures do.*

**Hypothesis 5b:** *High-performance orientation cultures give higher priority to relation-oriented 3PL selection criteria than low-performance orientation cultures do.*

High-performance orientation organizations encourage and reward group members for performance improvement and excellence (House et al., 2004) and they work towards performing tasks that they know they can conduct without taking risks (Dweck & Legget, 1988; Ames & Archer, 1988). 3PL's managing performance, utilizing information systems and having prior service experience are important to reduce risks and to ensure successful accomplishment of tasks. Thus, it is expected that high-performance orientation cultures give higher value and priority to success-oriented criteria than low-performance orientation cultures do when selecting 3PLs.

**Hypothesis 6a:** *High-performance orientation cultures give higher value to success-oriented 3PL selection criteria than low-performance orientation cultures do.*

**Hypothesis 6b:** *High-performance orientation cultures give higher priority to success-oriented 3PL selection criteria than low-performance orientation cultures do.*

### 3.4. Linking Paternalism to 3PL Selection

According to Aycan (2000), in paternalistic cultures, the role of the superior party is to provide guidance, protection, nurturance and care to the subordinate, and the role of the subordinate party, in return, is to be loyal and deferent to the superior. If the buyer firm is paternalist, then they will give importance to finding some affinity with the selected suppliers to assure loyalty, commitment, and trust. Thus, it is expected that paternalistic cultures give higher value and priority to relation-oriented criteria than non-paternalistic cultures do when selecting 3PLs.

**Hypothesis 7a:** *Paternalistic cultures give higher value to relation-oriented 3PL selection criteria than non-paternalistic cultures do.*

**Hypothesis 7b:** *Paternalistic cultures give higher priority to relation-oriented 3PL selection criteria than non-paternalistic cultures do.*

**4. Methodology**

**4.1. Research Setting and Data Collection**

Data of the study was collected by means of a survey questionnaire composed of items measuring organizational culture and importance/ priority given to 3PL selection criteria. We conducted a pilot test via a logistics consultant with 3PL experience to ensure face validity. With few wording changes, we implemented the survey to medium sized companies in İstanbul. The survey data was collected between February 2013 and April 2014. The survey was sent to 400 firms utilizing 3PLs and 95 of them fully completed it, with a response rate of 24 %. The length of the survey and reluctance to disclose organizational information may lead to this low response rate. However, since the participant firms belong to a widespread range of sectors as presented in Table 2, our survey results are assumed to be unbiased.

**Table 2. Participant companies’ sectors**

Sector	No. of Companies
Paper and packaging	3
Apparel footwear & accessories	5
Publishing	2
Housewares & Accessories	9
Foreign commerce	4
Computer and Electronics	17
Food	8
Service	2
Construction	4
Chemicals	10
Metal fabrication	3
Automotive	5
Merchant	3
Pharmaceutical	6
Logistics	4
Textile	10
Total	95

**4.2. Measurement**

We operationalized organizational culture dimensions performance orientation, future orientation and uncertainty avoidance by using 5-point Likert scales adapted from GLOBE Study (House et al., 2004) and Naor et al. (2010). Likewise, organizational paternalism was measured by using 5-point Likert scale adapted from Aycan (2001). Adaptation of culture scales was made by considering interactions between outsourcing firms with partner firms. 3PL selection criteria

importance levels were measured by using 5-point Likert scales adapted from Bottani and Rizzi (2006), and Jharkharia and Shankar (2007). 3PL selection criteria priorities were measured by a ranking question that requests ordering the criteria according to the priorities.

*Performance orientation* is measured by three items adapted from the GLOBE study (House et al., 2004) and Naor et al. (2010). Cronbach’s alpha of this scale is 0,781. *Future orientation* is measured by five items adapted from the GLOBE study (House et al., 2004) and Naor et al. (2010). Cronbach’s alpha of this scale is 0,840. *Uncertainty avoidance* is measured by six items adapted from the GLOBE study (House et al., 2004) and Naor et al. (2010). Cronbach’s alpha of this scale is 0,850. *Paternalism* is measured by six items adapted from Aycan (2001). Cronbach’s alpha of this scale is 0,870.

*3PL selection criteria* are measured using 5-point Likert scales adapted from Bottani and Rizzi (2006) and Jharkharia and Shankar (2007). The 3PL selection criteria and their respective Cronbach’s alpha values are presented in Table 3.

**Table 3. 3PL Selection Criteria Measures with Cronbach’s alphas**

	Criteria	Cronbach’s alpha
Success-Oriented	Breadth of service	0,689
	Service experience	0,702
	Flexibility of service	0,610
	Risk management	0,692
	Information systems	0,612
	Performance management	0,691
Relation-Oriented	Compatibility	0,608
	Trust	0,614
	Relatedness	0,714
	Long-term relations	0,620

**4.3. Data Analysis**

In this research, data analysis was conducted in three parts. In the first part, factor analysis for scale refinement was implemented. In the second part, descriptive analysis of the study constructs was run. In the third part, independent two-sample t-tests were conducted to test for the difference in the importance (value in the range 1-5) given to relation and success oriented criteria between high and low culture groups while non-parametric Wilcoxon rank sum tests were conducted to test for the difference in the priority (rank in the range 1-10) given to relation and success oriented criteria between high and low culture groups.

Factor analysis was used in refining the scales by identifying the dimensionality of the variables and then relating to the conceptual definitions. Before conducting component factor analysis, the appropriateness of factor analysis was assessed through the Bartlett test of sphericity and Kaiser–Meyer–Olkin measure of sampling adequacy. To select the number of components to be retained for further analysis according to the results of the component factor analysis, the latent root criterion was applied to the results for the extraction of component factors. To optimize the number of factors, the scree test criterion was used. Varimax rotation was applied to the factors to identify the loadings. The reliabilities of the subscales were represented by Cronbach’s alpha.

The result of the factor analysis for relation-oriented criteria variables showed that there were four components with significant loadings ( $> .40$ ). These components were trust, relatedness, compatibility and long-term relations. As shown in Table 4, total variance

explained ( $62.6\% > 50\%$ ) and it was satisfactory. Cronbach’s alpha values of components were also satisfactory.

The result of the factor analysis for success-oriented criteria variables showed that there were six components with significant loadings ( $> .40$ ). These components were breadth of service, service experience, and risk management, flexibility of service, performance management, and information systems. As shown in Table 5, total variance explained ( $64.88\% > 60\%$ ) and it was satisfactory. Cronbach’s alpha values of components were also satisfactory.

The result of the factor analysis for cultural dimension variables showed that there were four components with significant loadings ( $> .40$ ). These components were uncertainty avoidance, future orientation, performance orientation and paternalism. As shown in Table 6, total variance explained ( $54,96\% > 50\%$ ) and it was satisfactory. Cronbach’s alpha values of components were also satisfactory.

**Table 4. Relation-oriented 3PL Selection Criteria Factor Analysis**

	Component				Cronbach’s alpha
	1	2	3	4	
<b>Relatedness</b>					0,714
Academic background (same school, etc.)	,759				
Family relationship	,737				
To be in the same religion, club or society	,726				
To be established in the same geographic region	,690				
<b>Long-term relations</b>					0,620
Service providers not behave opportunistically		,816			
Service providers’ willingness to share risks and rewards		,735			
Service provider not focus on short term goals		,700			
<b>Trust</b>					0,614
Trustiness			,834		
Effective and on time information sharing			,831		
<b>Compatibility</b>					0,608
Compatibility of work practices and strategies (innovative, aggressive, reactive or proactive)				,854	
Compatibility of firms in general				,825	

Total variance explained = 62.6%

**Table 5. Success-oriented 3PL Selection Criteria Factor Analysis**

	Component						Cronbach's alpha
	1	2	3	4	5	6	
<b>Breadth of service</b>							,689
Breadth of service (logistic processes and activities range from shipment to distribution, packaging to inverse logistics)	,751						
Getting a wide variety range of services from one logistic service provider (meet the firms external logistic service need from minimum number of logistic service provider)	,849						
<b>Service experience</b>							,702
Similar service experience before		,678					
Service experience in the same sector		,642					
Duration of the service experience		,644					
Experienced personnel and managers in the similar service field		,704					
Experienced personnel and managers in the similar sector		,714					
<b>Risk management</b>							,692
Utilize risk management system			,805				
To be able to deal with unforeseen and unexpected problems			,865				
<b>Flexibility of service</b>							,610
Flexibility in providing logistic services				,656			
Flexibility of adaptation of the changes in the process of work to the contract				,717			
Capability of creating customized service solutions to its customers				,821			
<b>Performance management</b>							,691
Utilize performance management system					,774		
Performance outputs are used to overcome the shortages of provided services					,823		
<b>Information systems</b>							,612
Availability of the information technology (ERP, simulation, vehicle routing packages, etc.)						,531	
Availability of the physical equipment (server, network, bar code printers, GPS, etc.)						,730	
Information systems integration with the logistic service provider						,807	

Total variance explained = 64.88%

**Table 6. Cultural Dimensions Factor Analysis**

	Component				Cronbach's alpha
	1	2	3	4	
<b>Uncertainty avoidance</b>					,779
This firm insists on consistency and orderliness even though there is hindrance of change and innovation.		,761			
In this firm it is believed that scientific methods should contribute more to decision making than intuition and beliefs.			,758		
In this firm management prefers utilizing objective data rather than intuition or tradition.			,618		
This firm utilizes plans, software and such tools and methods to avoid uncertainty in its supply chain.		,603			
This firm always treats uncertain conditions in its supply chain as threats.		,654			
This firm tries to avoid risks by making detailed programs of the works to do with business partners.		,564			
<b>Future orientation</b>					,792
In this firm it is believed that success depends on planning ahead rather than solving issues as they occur.			,635		
In this firm meetings are conducted according to the plans made ahead (at least two weeks before) rather than instantaneously.			,717		
In this firm long-term targets are aimed rather than short-term ones to achieve better performance levels.			,801		
In this firm an effort is made to anticipate the potential of new production and service practices and technologies.			,655		
In this firm regarding the relations with partner firms long-term is considered and opportunistic behaviors in the short-term are disregarded.			,748		
<b>Performance orientation</b>					,685
In this firm partner firms are encouraged to improve their performance continuously.				,662	
In this firm innovations aiming to improve performance levels are significantly rewarded.				,707	
In this firm it is expected that partner firms achieve their targeted performance levels.				,736	
<b>Paternalism</b>					,824
In this firm, partner firms are expected to demonstrate self-sacrificing when our firm requires.	,813				
In this firm, partner firms are expected to be open to our firm's guidance.	,575				
In this firm, partner firms' grief and happiness are shared.	,763				
In this firm, it is expected to be able to guide partner firms.	,691				
In this firm, partner firms' off-the-job problems are paid attention to.	,739				
In this firm, partner firms are protected against outer criticisms and threats.	,748				

Total variance explained = 54.96%

According to descriptive analysis minimum, maximum, mean, and standard deviation values as given in Table 7 were obtained. Average importance levels given by the participant outsourcing firms to the relation-oriented and success-oriented criteria are above moderate. There are outsourcing firms with very low importance levels in both relation-oriented and success-oriented criteria. In addition, there are outsourcing firms with very high importance levels in both relation-oriented and success-oriented criteria. When organizational culture averages of the participant organizations are examined, it is observed that in all

cultural dimensions averages are moderate or below moderate levels. There are outsourcing firms with very high and very low levels in organizational culture dimensions.

High and low groups were obtained for each cultural dimension by assigning the firms that gave more than 3 to high while 3 or less to low groups. In this manner, independence of the high and low groups for each cultural dimension is assured. Kolmogorov-Smirnov tests were conducted to check for normality at 0,05 level. All cultural variables were normal. All relation-oriented criteria were normal except for the relatedness

criteria. While service experience, risk management and performance management criteria were normal, the rest of the success-oriented criteria didn't satisfy the normality assumptions. Since deviation from the required significance level is not so extreme and the sample size is also small, we assumed normality based on the plots for these variables. In addition, tests for the homogeneity of variance were conducted and in almost all of the cultural dimensions homogeneity of variance was assured in all criteria.

To test the hypotheses about the differences between high and low groups in terms of the mean importance given to relation-oriented and success-oriented criteria, independent two-sample t-tests were utilized. In addition, to test the hypotheses about the differences between high and low groups in terms of the priority given to relation-oriented and success-oriented criteria, non-parametric Wilcoxon rank sum tests were conducted. The tables of test results are given in the appendix.

**Table 7. Descriptive Statistics on the Study Variables**

		Min	Max	Mean	Std. Deviation
Relation-Oriented Criteria	Trust	2,00	5,00	3,88	0,82
	Relatedness	1,00	5,00	3,30	0,85
	Long-term relations	1,00	5,00	3,85	0,74
	Compatibility	3,00	5,00	3,99	0,67
	Breadth of service	1,50	5,00	3,43	0,92
	Service experience	2,00	5,00	3,86	0,62
Success-Oriented Criteria	Flexibility of service	2,33	5,00	3,86	0,69
	Risk management	2,00	5,00	3,66	0,87
	Performance management	1,50	5,00	3,57	0,95
Organizational Culture	Information systems	1,33	5,00	3,37	0,79
	Uncertainty avoidance	1,50	4,42	3,03	0,69
	Future orientation	1,50	4,40	3,11	0,79
	Performance orientation	1,17	4,67	2,86	0,78
	Paternalism	1,33	4,08	2,21	0,67

## 5. Results

### 5.1. Uncertainty Avoidance

As presented in Table 8, high uncertainty avoidance firms differ significantly from low uncertainty avoidance firms in terms of the value given to trust, relatedness, long-term relations, service experience, performance management and information systems criteria. Thus, these results support Hypotheses 1a and 2a in some of the sub-dimensions.

As presented in Table 9, high uncertainty avoidance firms differ significantly from low uncertainty avoidance firms in terms of the priority given to relatedness and information systems usage criteria. Thus, according to these results Hypothesis 1b and 2b are supported in some of the sub-dimensions.

### 5.2. Future Orientation

As presented in Table 10, high future orientation firms differ significantly from low future orientation firms in terms of the value given to the criteria long-term relations, breadth of service, service experience, risk management, performance management and flexibility of service. Thus, these results support Hypothesis 4a

fully while Hypothesis 3a in some of the sub-dimensions.

As presented in Table 11, high future orientation firms do not differ significantly from low future orientation firms in terms of the priority given to the criteria. Thus, according to these results Hypotheses 3b and 4b are not supported.

### 5.3. Performance Orientation

As presented in Table 12, high-performance orientation firms differ significantly from low-performance orientation firms in terms of the value given to the criteria long-term relations, service experience, performance management, and information systems usage. Thus, these results support Hypotheses 5a and 6a in some of the sub-dimensions.

As presented in Table 13, high-performance orientation firms differ significantly from low-performance orientation firms in terms of the priority given to the criteria breadth of services. Thus, according to these results Hypothesis 6b is supported in some of the sub-dimensions while Hypothesis 5b is not supported.

#### 5.4. Paternalism

As presented in Table 14, paternalistic firms differ significantly from non-paternalistic firms in terms of the value given to the criteria relatedness. Thus, these results support Hypothesis 7a in some of the sub-dimensions.

As presented in Table 15, paternalistic firms differ significantly from non-paternalistic firms in terms of the priority given to the criteria trust and relatedness. Thus, according to these results Hypothesis 7b is supported in some of the sub-dimensions.

### 6. Conclusion and Discussion

Logistics outsourcing requires careful evaluation of alternative 3PL service providers and decision making based on a specified set of selection criteria. This study shows that decision makers are influenced by their organizational cultures when they value and prioritize the relation-oriented versus success-oriented 3PL selection criteria, and thus confirms the cultural studies that show the influence of culture on operations management (Naor et al., 2010; Kull & Wacker, 2010).

The results of this study indicate that the firms with high uncertainty avoidance give higher value and priority to information systems usage criterion (success-oriented) and relatedness (relation-oriented) than the firms with low uncertainty avoidance. High uncertainty avoidance firms' bringing information systems usage criterion to the foreground in their 3PL evaluation reflects this organizational culture's emphasis on traceability, monitoring and systematic working (Hofstede, 2001) whereas their bringing relatedness criterion to the foreground in their 3PL evaluation reflects this organizational culture's emphasis on relations to be able to eliminate risks. In addition, the present study's findings show that paternalist firms give higher importance and priority to relatedness criterion (relation-oriented) than non-paternalist firms. Paternalist firms' bringing relatedness criterion to the foreground in their 3PL evaluation indicates this organizational culture's emphasis on linkages such as citizenship and kinship (Kabasakal & Bodur, 2002).

This study demonstrates that high uncertainty avoidance firms give higher value to relation-oriented criteria long-term relations and trust than low uncertainty avoidance firms. Li and Zahara (2012, pp. 95) state that "uncertainty avoidance indicates low tolerance for risk-taking activities and raises the opportunity costs of risk-taking." Thus, we could interpret uncertainty avoidant culture's valuing long-term relations and trust criteria as resulting from their need to eliminate the risks by utilizing relations and by preferring the related and trusted service providers as close partners. According to our research findings, high uncertainty avoidance firms

give higher value to success-oriented criteria service experience and performance management than low uncertainty avoidance firms do. By utilizing experienced service providers in that specific logistics activity and ensuring performance management conducted on behalf of the service provider, high uncertainty avoidance firms try to reduce the risks associated with 3PL firm utilization (Li & Zahara, 2012).

This research shows that high future orientation firms give higher value to relation-oriented criteria long-term relation than low future orientation firms do. According to Das and Teng (2001), high future orientation partners will not behave opportunistically and not risk their relation. High future orientation cultures plan for and invest in the future delaying immediate gratifications (House et al., 2002). Thus, long-term relation preference of high future orientation firms is in line with the literature. In addition, the findings indicate that high future orientation firms give higher value to success-oriented criteria breadth of service, service experience, risk management, performance management and flexibility of service than low future orientation firms do. High future orientation cultures have long term plans (Das, 1987), focus on strategic planning (Kitchell, 1995) and value flexibility (Kull & Wacker, 2010), thus their valuing those criteria can be interpreted as ensuring their future success.

The study results attest that high-performance orientation firms give higher value to relation-oriented criteria long-term relation than low-performance orientation firms do. High-performance orientation ones work towards performing tasks that they know they can conduct without taking risks (Dweck & Legget, 1988; Ames & Archer, 1988). Thus, by working with long-term relation 3PLs those firms want to ensure performance without taking risks. Moreover, the findings indicate that high-performance orientation firms give higher value to success-oriented criteria service experience, performance management, and information systems usage than low-performance orientation firms do. This cultural dimension involves responsibility for processes and importance given to work (Javidan et al., 2004). High-performance orientation firms bring these success-oriented criteria in the foreground in their 3PL evaluation since they believe that achievement of the delivery of services with integrity is more likely in this manner.

### 7. Managerial Implications

According to the results of this study, organizational culture influences valuation and prioritization of 3PL selection criteria. Firms those are high in some cultural dimensions give more value and priority to relation-oriented criteria while firms that are high in some other cultural dimensions value and prioritize success-

oriented criteria. These findings could be utilized by the managers of the service buying firms in being aware of their values and priorities in their 3PL selection processes and informing their service providers accordingly. Moreover, the findings of this study could be used by 3PL and 4PL (firms that match outsourcing and 3PL companies) service providers in order to improve effectiveness of their logistics management efforts and tailor their service provision according to the cultures of potential or current service buying firms. For example, knowing that a paternalist firm values and prioritize a 3PL's being from the same geographical region, a 4PL would propose that outsourcing firm to serve with 3PLs based on its geographical region to satisfy the customer from the start. To satisfy an uncertainty avoidant firm proactively, a 4PL should propose them to serve with 3PLs that utilize information systems.

Being aware of the increasing outsourcing potential and the existence of many competitors, 3PLs' knowledge of which cultures give more value and priority to which relation-oriented/ success-oriented criteria is valuable in development and tailoring of their service provisions and establishment of successful long-term relations with their customers. The results of this study will be beneficial for 3PL companies in guiding them what to develop and build up and emphasize in their service provisions and proposals for successful partnership with targeted outsourcing firms that have varying organizational cultures.

Moreover, 4PL firms, which select and organize 3PLs according to their customers' requirements and manage supply networks, will benefit from this research findings. It will be very valuable in determining which 3PL will be a best fit for a customer and establishing successful partnerships. According to an end customer's organizational culture, a 4PL firm could determine which 3PL selection criteria have more value and priority. Thus, that 4PL will single out the 3PL with matching service provision qualifications.

## 8. Limitations and Future Research Directions

One limitation of this study is having a small sample size. In further studies with better sample sizes further support for the study hypotheses could be obtained. In addition, in further studies more criteria under relation-oriented or success-oriented headings could be analyzed. Besides, in cross-cultural studies national culture's influence on the valuation and prioritization of 3PL selection criteria could be investigated.

Moreover, in further studies, 3PLs' culture and whether they value and prioritize relation or success oriented criteria in their service provision could be analyzed. A correspondence analysis could give important results in

terms of 4PL's matching strategies and provide a holistic picture of organizational culture's influence on the supply network.

In further studies, the consequences of culture influenced selections could also be studied with possible relational and work performance outcomes.

## References

- Ames, C. and Archer, J. (1988) "Achievement goals in the classroom: Students' learning strategies and motivation processes", *Journal of Educational Psychology*, 80, pp. 260-267.
- Ashkanazy, N., Gupta, V., Mayfield, M. and Trevor-Roberts, E. (2004) "Future Orientation" In R. House, P. Hanges, and M. Javidan (Eds.), *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies* (pp. 282-342), SAGE, Thousand Oaks, CA, 0-7619-2401-9
- Aycan, Z. (2000) *Türkiye'de Yönetim, Liderlik ve İnsan Kaynakları Uygulamaları*, Türk Psikologlar Derneği Yayınları, Ankara. .
- Aycan, Z. (2001) "Paternalizm: Yönetim ve liderlik anlayışına ilişkin üç görgül çalışma", *Yönetim Araştırmaları Dergisi*, 1, pp.11-31.
- Bagchi, P. K. and Virum, H. (1998) "Logistical alliances: Trends and prospects in integrating Europe", *Journal of Business Logistics*, 19, pp. 191-213.
- Bass, B.M. (1990) "Task Versus Relations-Oriented Leadership" In B.M. Bass (Ed.), *Bass & Stogdill's Handbook of Leadership* (pp. 473-510). New York: Free Press.
- Borekci, D., Rofcanin, Y. and Sahin, M. (2014) "Effects of Organizational Culture and Organizational Resilience over Subcontractor Riskiness: A Multi-Method Study in Longitudinal Time Setting", *European Business Review*, 26 (1), pp. 2-22.
- Bottani, E. and Rizzi, A. (2006) "A Fuzzy TOPSIS methodology to support outsourcing of logistics services", *Supply Chain Management: An International Journal*, 11, pp. 294-308.
- Bowersox, D. J. and Daugherty, P. (1990) *Logistical Excellence: It's Not Business as Usual*, Digital Press, Burlington, MA, 1-55558-087-4.
- Boyson, S., Corsi, T.M., Dresner, M.E. and Harrington, L.H. (1999) *Logistics and the Extended Enterprise: Benchmarks and Best Practices for the Manufacturing Professional*, Wiley, New York.
- Carter, J. R., Maltz, A., Maltz, E., Goh, M. and Tingting, Y. (2010) "Impact of culture on supplier selection decision making", *The International Journal of Logistics Management*, 21(3), pp. 353-374.

- Das, T. K. (1987) "Strategic planning and individual temporal orientation", *Strategic Management Journal*, 8(2), pp. 203-209.
- Das, T. K. and Teng B. (2001) "A risk perception model of alliance structuring", *Journal of International Management*, 7, pp. 1-29.
- De Luquei, M. S. and Javidan, M. (2004) "Uncertainty Avoidance" R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman ve V. Gupta (Eds), *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, pp. 602-653. California: SAGE.
- Dweck, C. and Leggett, E. L. (1988) "A social-cognitive approach to motivation and personality", *Psychological Review*, 95, pp. 256-273.
- Hofstede, G. (1984) *Culture's Consequences: International Differences in Work-Related Values*, SAGE, Newbury Park, CA.
- Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors Institutions and Organizations Across Nations*, SAGE, Thousand Oaks, CA.
- Hofstede, G. and Hofstede, G. J. (2005) *Cultures and Organizations: Software of the Mind (2<sup>nd</sup> Eds)*, McGraw-Hill, New York, NY.
- House, R., Hanges, P. and Javidan, M. (2004) *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, SAGE, Thousand Oaks, CA, 0-7619-2401-9.
- Işıklar, G., Alptekin, E. and Büyüközkan, G. (2007) "Application of a hybrid intelligent decision support model in logistics outsourcing", *Computers & Operations Research*, 34, pp. 3701-3714.
- Javidan, M. and House, R. J. (2001) "Cultural acumen for the global manager: Lessons from project GLOBE", *Organizational Dynamics*, 29, pp. 289-305.
- Jharkharia, S. and Shankar, R. (2007) "Selection of logistics service provider: An analytic network process (ANP) approach", *Omega*, 35, pp. 274-289.
- Kabasakal, H. and Bodur, M. (2002) "Arabic cluster: A bridge between East and West", *Journal of World Business*, 37, pp. 40-54.
- Kale, S. H. and Barnes, J. W. (1992) "Understanding the domain of cross-national buyer-seller interactions", *Journal of International Business Studies*, 23, pp. 101-132.
- Kitchell, S. (1995) "Corporate culture, environmental adaptation, and innovation adaptation: A qualitative/quantitative approach", *Journal of the Academy of Marketing Science*, 23(3), pp. 195-205.
- Kull, T. J. and Wacker, J. G. (2010) "Quality management effectiveness in Asia: The influence of culture", *Journal of Operations Management*, 28(3), pp. 223-239.
- Li, Y., and Zahara, S. A. (2012) "Formal institutions, culture, and venture capital activity: A cross-country analysis", *Journal of Business Venturing*, 27, pp. 95-111.
- Lieb, R. and Randall, H. (1996) "A comparison of the use of third-party logistics services by large American manufacturers", *Journal of Business Logistics*, 17, pp. 305-320.
- Lieb, R. C., Bentz, R. and Brooks, A. (2005) "The use of third-party logistics services by large American manufacturers: The 2004 survey", *Transportation Journal*, 44, pp. 24-33.
- Marasco, A. (2008) "Third-party logistics: A literature review", *International Journal Of Production Economics*, 113, pp. 127-147.
- McKeon, J. E. (1991) "Outsourcing begins in-house", *Transportation & Distribution*, 25(8), pp. 24-28.
- Mead, R. (1994) *Patronage Relationships*, *International Management*, Blackwell.
- Moorman, C., Deshpande, R. and Zaltman, G. (2010) "Factors affecting trust in market research relationships", *Journal of Marketing*, 57, pp. 81-101.
- Mothilal, S., Gunasekaran, A., Nachiappan, S. P. and Jayaram, J. (2012) "Key success factors and their performance implications in the Indian third-party logistics (3PL) industry", *International Journal of Production Research*, 50 (9), pp. 2407-2422.
- Naor, M., Linderman, K. and Schroeder, R. (2010) "The Globalization of operations in Eastern and Western countries: Unpacking the relationship between national and organizational culture and its impact on manufacturing performance", *Journal of Operations Management*, 28, pp. 194-205.
- Omar, A., Davis-Sramek, B., Myers, M. B. and Mentzer, J. T. (2012) "A global analysis of orientation, coordination, and flexibility in supply chains", *Journal of Business Logistics*, 33(2), pp. 128-144.
- Paşa, S., (2000) "Türkiye Ortamında Liderlik Özellikleri" In: AYCAN, Z., ed. *Akademisyenler ve Profesyoneller Bakış Açısıyla Türkiye'de Yönetim, Liderlik ve İnsan Kaynakları Uygulamaları*, Ankara. Türk Psikologlar Derneği Yayınları, pp. 225-241.
- Rajesh, R. and Ravi, V. (2015) "Supplier selection in resilient supply chains: a grey relational analysis approach", *International Journal of Physical Distribution and Logistics Management*, 30, pp. 343-359.
- Sarkis, J. and Sundarraj, R. P. (2000) "Factors for strategic evaluation of enterprise information technologies", *Journal of Cleaner Production*, 86, pp. 196-220.
- Singh, L. (1990) "Managerial culture and work-related values in India", *Organization Studies*, 11, pp. 75-101.
- Sink, H., Langley, J. and Gibson, B. (1996) "Buyer observations in the US third-party logistics market",

*International Journal of Physical Distribution and Logistics Management*, 26(3), pp. 38-46.

Tate, K. (1996) "The elements of a successful logistics partnership", *International Journal of Physical Distribution & Logistics Management*, 26, pp. 7-13.

Wasti, S.A. (1998) "Cultural barriers in the transferability of Japanese and American human resources practices to developing countries: the Turkish case", *The International Journal of Human Resource Management*, 9(4), pp. 608-631.

Ye, K., Le, B. and Shen, L. (2012) "Key factors considered in compiling tender prices for China's public project

works", *Journal of Management in Engineering*, posted ahead of print 10 Dec 2012.

Yılmaz, M. (2012) "Influence of Organizational Culture on Development and Prioritization of Logistics Service Provider Selection Criteria", *Unpublished Master Thesis*.

Yılmaz Borekci, D. (2009) "Paternalistic leadership style's evolution in e-culture", *Journal of the School of Business Administration, Istanbul University*, 38(2), pp. 103-109.

APPENDIX

**Table 8. Uncertainty Avoidance t-Test Results**

	Criteria	t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Relation-Oriented	Trust	1,980	93	0,051*
	Relatedness	-2,353	93	0,021*
	Long-term relations	-2,302	93	0,024*
	Compatibility	-1,143	93	0,256
	Breadth of service	-1,769	93	0,080
	Service experience	-2,098	93	0,039*
Success-Oriented	Flexibility of service	-0,983	93	0,328
	Risk management	-0,903	93	0,369
	Performance management	-2,997	93	0,003**
	Information systems	-5,181	93	0,000**

\* p<0,05; \*\*p<0,005

**Table 9. Uncertainty Avoidance Wilcoxon Test Results**

	Relation-Oriented Criteria				Success-Oriented Criteria					
	Trust	Relatedness	Long-term relations	Compatibility	Breadth of service	Service experience	Flexibility of service	Risk management	Performance management	Information systems
Wilcoxon W	2.551,0	2.310,5	1.921,0	2.499,0	1.866,0	1.929,5	2.496,0	1.768,5	1.834,0	1.623,5
Z	-0,309	-2,125	-0,355	-0,700	-0,769	-0,290	-0,724	-1,503	-1,009	-2,670
Asymp. Sig. (2-tailed)	0,757	0,034*	0,723	0,484	0,442	0,772	0,469	0,133	0,313	0,008**

\* p<0,05; \*\*p<0,005

**Table 10. Future Orientation t-Test Results**

	Criteria	t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Relation-Oriented	Trust	1,325	93	0,188
	Relatedness	-0,557	93	0,579
	Long-term relations	-5,275	93	0,000**
	Compatibility	-0,546	93	0,586
	Breadth of service	-3,350	93	0,001**
	Service experience	-3,617	93	0,000**
Success-Oriented	Flexibility of service	-1,946	93	0,055*
	Risk management	-2,877	93	0,005**
	Performance management	-3,668	93	0,000**
	Information systems	-1,592	93	0,115

\* p<0,05; \*\*p<0,005

**Table 11. Future Orientation Wilcoxon Test Results**

	Relation-Oriented Criteria				Success-Oriented Criteria					
	Trust	Relatedness	Long-term relations	Compatibility	Breadth of service	Service experience	Flexibility of service	Risk management	Performance management	Information systems
<b>Wilcoxon W</b>	1.895,5	1.835,0	2.383,0	1.965,5	2.371,0	2.552,0	2.410,5	1.967,0	1.836,0	2.385,5
<b>Z</b>	-0,546	-1,004	-1,577	-0,019	-1,666	-0,301	-1,368	-0,008	-0,994	-1,600
<b>Asymp. Sig. (2-tailed)</b>	0,585	0,315	0,115	0,985	0,096	0,763	0,171	0,994	0,320	0,110

\* p<0,05; \*\*p<0,005

**Table 12. Performance Orientation t-Test Results**

Criteria	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Trust	1,909	93	0,059
Relatedness	0,074	93	0,941
Long-term relations	-2,750	93	0,007**
Compatibility	-0,059	93	0,953
Breadth of service	-1,607	93	0,112
Service experience	-2,548	93	0,012*
Flexibility of service	-0,486	93	0,628
Risk management	-0,151	93	0,880
Performance management	-2,046	93	0,044*
Information systems	-2,998	93	0,003**

\* p<0,05; \*\*p<0,005

**Table 13. Performance Orientation Wilcoxon Test Results**

	Relation-Oriented Criteria				Success-Oriented Criteria					
	Trust	Relatedness	Long-term relationships	Compatibility	Breadth of service	Service experience	Flexibility of service	Risk management	Performance management	Information systems
<b>Wilcoxon W</b>	2.710,0	1.693,5	2.782,0	2.804,5	1.422,0	1.495,0	2.670,5	2.812,5	1.501,5	1.546,0
<b>Z</b>	-0,938	-0,266	-0,385	-0,211	-2,355	-1,792	-1,243	-0,150	-1,742	-1,440
<b>Asymp. Sig. (2-tailed)</b>	0,348	0,790	0,700	0,833	0,019*	0,073	0,214	0,881	0,082	0,150

\* p<0,05; \*\*p<0,005