Knowledge Sharing in Business Organizations: Leadership Role in Knowledge Sharing at Turkish Enterprises

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Chapter 4
Knowledge Sharing in Business Organizations:
Leadership Role in Knowledge Sharing at Turkish Enterprises

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ABSTRACT

This chapter aims to explain leadship in knowledge sharing in the business environment. Knowledge sharing is not primarily an information technology issue, because knowledge exists not only in the minds of members but also in the business processes and structures of organizations. That is why Knowledge Sharing Culture (KSC) and leadership play a significant role on knowledge sharing. This chapter presents the findings of a study which was carried-out to investigate the effects of different leadership styles on knowledge sharing in business organizations. As leadership dimensions; transformational, transactional, autocratic, self-leadership and laissez-faire leadership styles were analyzed. A quantitative empirical research using the survey method was adopted to see the leadership effects on KSC in the 130 enterprises from the Aegean Free Zone/Turkey. The findings of the study revealed that trust, sharing data freely, friendship and teamwork were important in knowledge sharing.

INTRODUCTION

Knowledge exists not only in the minds of the members (Davenport & Prusak, 1998), but also in the business processes and structures of organizations. Knowledge sharing is not primarily dependent on technology, but it is correlated with culture because culture defines the value of the knowledge that members share due to the exchange (Xu, Jiang, Wang, Yuan & Ren, 2014). That is why organizational cultural issues, Knowledge Sharing Culture (KSC), and leadership play an important role in influencing knowledge sharing practices (Galagan, 1997; Blankenship & Ruona, 2009).

The main objective of this chapter is to examine the effects of different leadership styles on knowledge sharing in business organizations. The sub-objectives were, first to research on organizational culture and

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leadership concepts in knowledge sharing culture, and second, to find out the most effective leadership styles that promote knowledge sharing culture. More detailed explanation of the objectives are in the "main focus and objectives" part of the chapter. The emprical research was conducted in enterprises in the Aegean Free Zone in Izmir/Turkey (Arun, 2008).

A free zone is an area that is within the boundaries of a country, and yet is considered to be outside of the customs zone and is designed to attract export-oriented activities. Firms in free zone have more analogous cultural relations because they are in more a closed environment. That is why entrepreises in the free zone were chosen as sample. Meanwhile, the origins of the firms and business have a broad range. In general, although free zones are within the political boundaries of the country, they are places which are physically separated from other parts of the country. Free zones are considered to be outside the customs area, legal and administrative regulations. The economic and financial obligations of the host country are not implemented or are partially implemented and the organizations are given more extensive incentives for their industrial and commercial activities. In addition to their contribution to the economy of the country they operate in, free zones, with its their modern and flexible administrative structures, provide modern and advanced investment environment for the companies that want to develop more foreign trade as well as increase their importance as logistics centers. As a way of encouraging export-oriented investment and production, free zones have been operating in Turkey since 1987.

This chapter will shed light on the effects of leadership on knowledge sharing from different leadership perspectives, including; transformational, transactional, autocratic, self-leadership and laissez-faire styles and their dimensions. The originality of the chapter comes from the proof that there *is* no most effective leadership style on KSC, instead intersection of different dimensions of leadership styles has the most convenient ways of embracing KSC. As a result, proper reward systems and management by exception- were found to be the most significant for knowledge sharing.

LITERATURE REVIEW

The nature of knowledge sharing processes depends on cultural (Bureš, 2003) and structural factors. Important factors of organizational culture are organizational structure, leadership, process, structure, reward system, IT system and people. Motivation, trust and interaction are also important factors (Al-Alawi, Al-Marzooqi, & Mohammed, 2007). Knowledge sharing is facilitated by leaders who are able to reconcile centralized and shared leadership (Santos, Wane & Lopes, 2014). Leadership plays a strategic role in knowledge sharing and in merging knowledge management with the organizational targets (Kukko, 2013). According to Davenport and Prusak (1998), leaders guide organizations' professional knowledge managers and lead the development of learning and knowledge strategies. In other words, leaders have a key role not only in the knowledge sharing culture but also in the retention of the organizal knowledge (Lin, Chang, & Tsai, 2016).

In sharing knowledge, the methods used must always suit the organizationl culture (Davenport & Prusak, 1998) of which leaders are the cornerstone shaping that culture. Even though Seba, Rowley, and Lambert (2012) found that rewards do not influence attitude to knowledge sharing, Aho & Uden (2014) revealed that a reward system is linked to knowledge sharing and top management support. According to Lin and Hsiao (2014), transformational leadership is positively related to trust. This isue will be explained further in this chapter.

Leadership

Leadership is a very broad concept but Takahashi, Ishikawa and Kanai Toshihiro (2012) simplified its constructs into five categories which are: traits and personality characteristics, behavior, contingency approach, including path-goal and leadership substitutes theory, leader–member exchange (LMX) theory and lastly new theories, transformational, transactional, charismatic and visionary leadership. The

Trait Theory explains leaders as persons; Behavior Theory is explained by leadership processes and Situational Theory is explained by outcomes or results (Fairholm & Fairholm, 2009). These approaches consider leadership in terms of what the leader is, what the leader does, and in which situation a leader is effective (Fairholm & Fairholm, 2009; Yukl, 2013).

In trait theory, researches show that there is no comprehensive theory that can explain a leader's personality (Andersen, 2006) but followers must accept these traits as necessary and/or sufficient for leadership (Marturano & Gosling, 2008). As a leader, personal traits can be an internal locus of control, sensitivity to others, intelligence, stability, integrity, flexibility, high energy, dominance and self-confidence, and determination (Lussier & Achua, 2010; Ghadiri, Habermacher, & Peters, 2011). Nevertheless leaders should fulfill individualized communication and ensure that the daily needs of followers are effectively addressed (Pauley & Pauley, 2009). In this way leaders can get support from followers according to the theory called idiosyncrasy credit (Hollander, 2004).

Leadership theories can be based on cognition and morality that are internal individual processes. In cognitive theories perceived behavior of leadership is correlated with the internal factors of individuals such as experiences, culture or psychology. But as in servant, citizen and transformational leadership, moratility is at the centre of mutual relationships between leaders and followers (Walker, 2006).

Behavioral theories criticised the trait theory and aimed to explain leadership styles as sets of behaviors to which later participative, autocratic, paternalistic / maternalistic (Northouse, 2001), opportunistic leadership styles were added (Ghadiri, Habermacher, & Peters, 2011; Marturano & Gosling, 2008; Jackson, 2016). But researchers were unable to find universally effective leadership behaviors (Yukl, 2013; Marturano & Gosling, 2008).

In situational theory, effectiveness is contingent upon the demands imposed by the situation and is not determined by the leader's style, stress, position of power and resources -including cognitive- (Fiedler & Macaulay, 1999; Fiedler, 1972), but is also based on the follower's motivation, skill with satisfaction, social structure and nature of the task to be performanced (Marturano & Gosling, 2008; Ayman, Chemers, & Fiedler, 1995; Simpson, Jr., 1969; Johnson, 1979).

Multiple-level approaches and moral leadership theories not only focus on Dyadic Relations and Followership in LMX theory and related approaches, as well as the growing recognition of the role of followers (Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010), but also on the relationship between leaders and followers where they all strive to attain mutual goals (Walker, 2006). Values based leadership (Lussier & Achua, 2010) is informed by the choice to pursue the goals advocated by the leader in exchange for something followers' value. If this exchange is tangible, transactional leadershipoccurs and if an exchange is intangible transformational leadership occurs (Chandler, III & Chandler, 2013).

Leadership affects knowledge management processes within organizations (Nguyen & Mohamed, 2011). Leaders are sources of beliefs, values and assumptions, and also have the ability to change them. However, the acceptance of the the leadership is dependent on how such leadership is useful in r making the organization successful and reducing the anxiety of the members (Schein, 2010). Reducing the anxiety

of the members in the enterprise helps individual willingness to share. Yang (2007) indicated that effective knowledge sharing occurs when mentoring and facilitating roles form part of an organizational culture.

Leaders play a key role in sharing knowledge because they can effect the dimensions of knowledgee sharing directly or indirectly. They can directly affect knowledge sharing through their followers or indirectly because they are in a position to alter organizational sturctures, processes or even organizationl culture.

Knowledge Sharing Culture

Knowledge sharing is a core process of dissemination and use of knowledge throughout the organization and this helps in creating innovation and sustained competitive advantage (Chatzoglou & Vraimaki, 2010). Knowledge sharing culture plays a key role in knowledge sharing. The importance of culture, in knowledge sharing depends on three fundamental factors: validating organizational knowledge, changing behaviors of members and conveying values which are important for sharing knowledge (Santos, Wane, & Lopes, 2014). Organizational culture can either block or embrace knowledge sharing (Davenport & Prusak, 1998). According to Hofstede et.al (1990), the values of the founders on cultures can shift though life cycle of the organizations and these cultures affect members differently through shared practices. Because of this, the value of information is changing through cultural perspectives as shown in Figure 1 below.

While concepts like process orientedness or result orientedness of the organization; the looseness or tightness of the structure; parochicality vs professionality of the management and whether normative or pragmatic organizational behaviors dominate the organization partially related to the industry, other concepts like orientation of employees and openness of the communication channels are generally determined by the philosophy of the founders and top managers (Leidner, 2003)

Information culture is also changing to the extent that organizational members decide on the value of the information. If the value of information is high then members are likely to hoard that information. On the other hand, if the value of information is low and knowledge sharing culture is strong, they are likey to share the information. Therefore, organizations should consider non-monetary recognition-based incentives for knowledge sharing (Wolfe & Loraas, 2008).

Leidner (2003) has underlined that the information culture of the organization depends on how much the corporation and individuals value the knowledge. Also result or process orientedness of the industry, parochicality or professionality of the individuals and the communication culture of the industry are external factors affecting the information culture of organizations. Figure 1 shows the relation of information culture with other surrenoding factors:

In Figure 1, parochial means that members are loyal to their organization and professional means that members are loyal to their profession. Several barriers influence knowldge sharing. These range from individual, organizational, team and social barriers and they are deeply rooted in social systems and are supported by the incentive system of knowledge sharing (Bureš, 2003). When the attitudes toward knowledge sharing are favorable, the intent to share knowledge will be positively supported (Bock, Zmud, Kim, & Lee, 2005). Nevertheless rewards constitute one of the most important motivator factors for knowledge sharing (Gee-Woo & Kim, 2001). Other barriers impacting on knowledge sharing are shown in Table 1.

Lack of trust between members is very harmful to the prospect of knowledge sharing (Santos, Wane, & Lopes, 2014). An organization-wide openness culture is important for knowledge sharing (Yang, 2007).

Figure 1. The relationship of information culture with surrounding factors
Source: Leidner, 2003

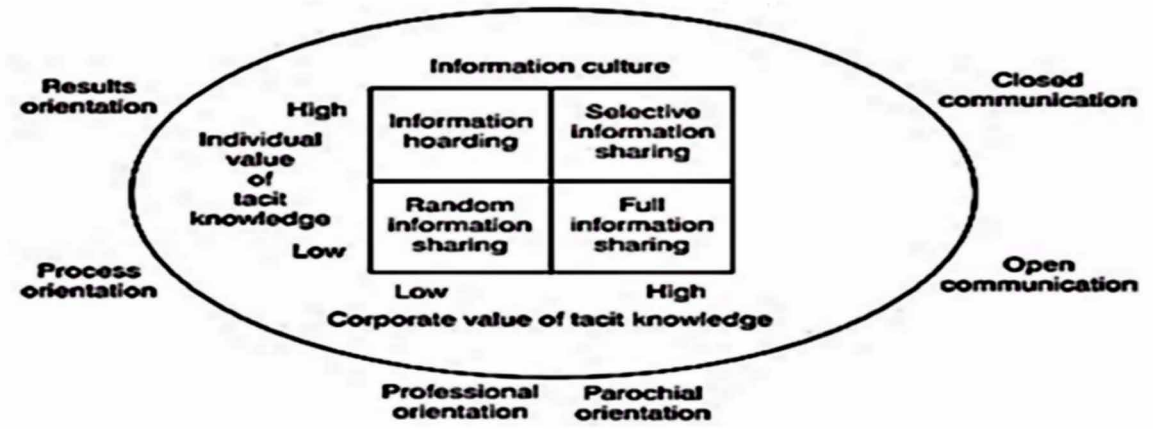


Table 1. Barriers to effective knowledge sharing

From an organizational perspective	• Process in building knowledge repositories is time and labour consuming. • Codifing their knowledge is extra work for organization members. • There have been constraints in front of knowledge processing and knowledge-based systems. • The technology is not yet well developed enough for large-scale application. • Following up the process is not easy when teams work on temporary projects. • To codify tacit knowledge is difficult. • There is difference between doing job and procedure standarts especially when people take spontaneous actions in responding to problems. • Information taken out of context can be misleading and misinterpreted. • Data mining tools are inappropriate when there is too much information.
From a team/group perspective	• If members fear to be criticized they will be reluctant to share knowledge. • There may also be subversion of group efforts if there is a lack of respect, trust, and common goals. • Reward systems are based on persons' knowledge and individual effort.
From an individual perspective	• People are often reluctant to share information. • Professional knowledge is perceived as a source of power. • There is a sense of worth and status to be gained because of expertise. • Feeling of "ownership'' and hoarding knowledge. • Fear of diminishing personal value after giving up know-how. • Competition among professionals can be intense. • Members expecting reward for valuable knowledge.

Source: Bollinger & Smith, 2001; Hanan & Stemke, 2014; Yaacob, et.al., 2011; Cagri, Unal, & Ayfer, 2015

Neglecting of managerial communication of the benefits of knowledge sharing is another barrier (Kukko, 2013). Contrary to this, if an organization supports communicatios networks where members can access knowledge freely, it will definitely enhance knowledge creation and knowledge sharing (Islam, Ahmed, Ikramul, & Ahmed, 2011). Other barriers were identified by Bureš (2003) who pointed out that barriers at the individual layer may include loss of power, fear of revelation, uncertainty, illusion of reward deprivation, single culture elements, difference between awareness and knowledge and conflict of motives.

To overcome these barriers and to change the culture, Skyrme (2002) proposed congruence among objectives, structures, processes, people and supporting infrastructure at every level of the organization

related to roles and responsibilities. Figure 2 presents the knowledge sharing culture factors that affect knowledge sharing:

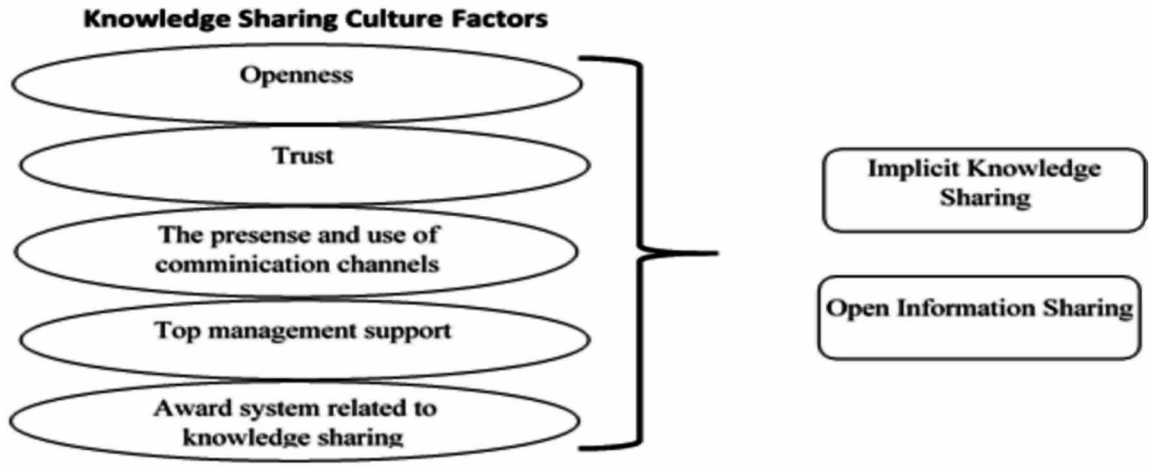
Values in knowledge sharing, including beliefs (Figure 2) are about openness, supportiveness, trust, collaboration, power, ownership, learning, freedom, sharing, top management support and award system (Alavi, Kayworth, & Leidner, 2005, 2006; Jacks, Wallace, & Nemati, 2012; Arun, 2008; Cabrera & Cabrera, 2005) can enhance information sharing. Openness is eliminating secrecy, making motives, feelings, and biases known (Strata, 1989), while trust is believing that others' actions will be favorable to one's interests (Edmondson & Mogelof, 2006). Top management support is related to motivating employees that sharing knowledge is also important for the sharer and finding knowledge enthusiast to become entrepreneurs (Earl & Scott, 1999). Reward systems can be intrinsic or monetary (Ipe, 2003). Contribution and interaction are most important conditions because people must feel a sense of self-direction and interaction is key to sustaining and growing the community (Boone, 2000).

Knowledge sharing behaviors and values are fundamental necessities like integrity, formality, control, transparency, sharing, and proactiveness (Cruz, 2011). To ensure these behaviors and values; leadership practices should encourage trust, open communication, creative thinking, novel ideas, cooperation, and collaboration (Dmytriv, 2015).

Knowledge sharing requires a substantial commitment on the part of top management that leaders can overcome barriers through knowledge sharing enablers (Al-Hawari, 2004). Von Krogh, Ichijo & Nonaka (2000) proposed five knowledge enablers. These are:

1. Instilinl a knowledge vision,
2. Managing conversation,
3. Mobilizing knowledge activists,
4. Creating the right context, and
5. Globalizing local knowledge.

Figure 2. Knowledge sharing culture factors affecting knowledge sharing
Source: Arun, 2008; Zaglago, Chapman, & Shah, 2013



The enablers do not follow a set sequence and can be affected by leadership using a strategy. Long-term changes are necessary in organizational cultures and individual behaviors relative to knowledge (Davenport & Prusak, 1998). Thus, knowledge sharing involves so many attributes including trusting others, being in communication with other members and being rewarded and valued not just by knowing but sharing what they know. That is why organizational culture is very important because it can provide constructive environment through which members can affiliate with, communicate and get direction and encouratement from the leaders.

Leadership and Knowledge Sharing Culture

Nguyen and Mohamed (2011) asserted that organizational culture and leadership concepts are independently linked to knowledge management. The nature of knowledge sharing process needs continual support on the part of the leaders (Singh, 2008). To embed or sustain the knowledge sharing culture, leaders themselves can share, pick up best practices, tune in practices with core values, align reward system to support knowledge sharing and build networks as well as exert pressure to share (McDermott & O'Dell, 2001). Leaders need to determine what the group needs in order to build the team around a common purpose and mutual respect with trust and team relationships agenda (Kouzes & Posner, 2007). Emotionally intelligent leaders enhance knowledge retention as well (Martins & Meyer, 2012).

Practical skills, positiveness, judgment, cultivating human resource and vision are mentioned as desirable leadership characteristics by Sasaki, Kunigami, Yoshikawa, and Terano (2014). These characteristics are a central concern for knowledge management.

Yang (2007) identified eight leadership roles:

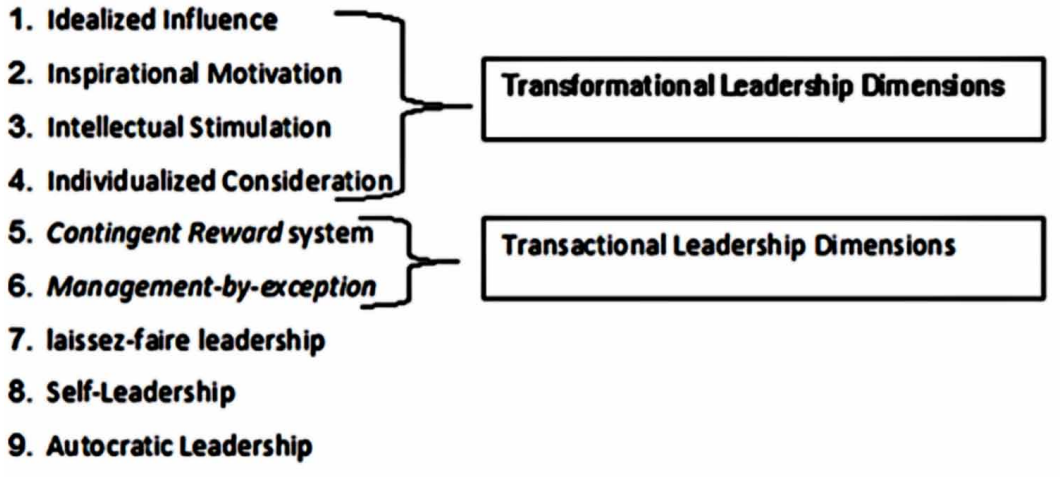
1. Monitor,
2. Coordinator,
3. Director,
4. Producer,
5. Innovator,
6. Broker,
7. Facilitator, and
8. Mentor roles.

He singled out the role of mentor and facilitator to be central to knowledge sharing. Facilitative behaviors of leaders have two underlying elements: consideration and participation. Initiation of goals and process structure by leaders are effective behaviors in knowledge sharing (Sarin & McDermott, 2003).

Situational leaders also have an impact on knowledge sharing. Sarin & McDermott (2003) explained that both the leader and the organization impact upon knowledge sharing. Organizations commonly use rules-policies, sequencing, routines, group problem-solving as the four mechanisms to foster the integration of an individual's knowledge.

Crawford (2004) found a strong relationship between transformational leadership style and contingent reward and negative relation management by exception in transactional leadership. Nguyen & Mohamed (2011) positively related transformational and transactional leadership behaviors to knowledge sharing, but used only attributed charisma and individualized consideration in transformational leadership

Figure 3. Nine leadership dimensions test ed on the effects of knowledge sharing



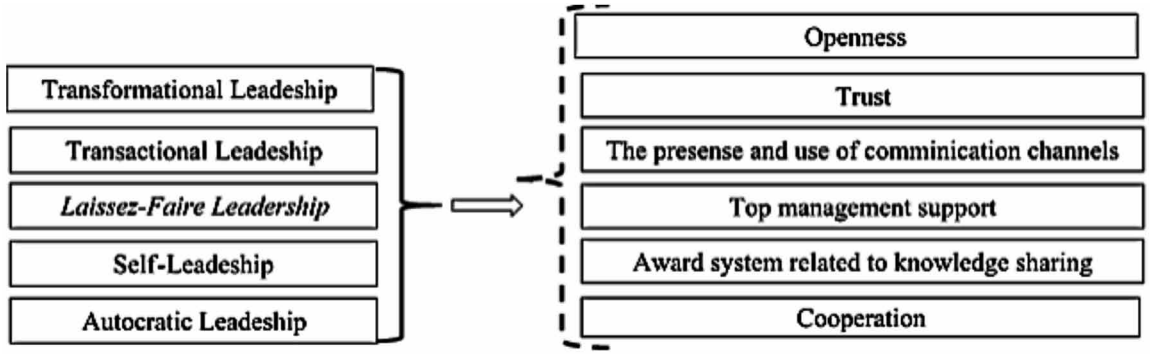
behaviors. Figure 3 presents the different dimenstions and roles of leadership to test their effects on knowledge sharing:

Encouraging KSC definitely relies on leadership behavior. Some leadership styles have direct effect on knowledge sharing but some have dimensional effects. In other words although laissez-faire, autocratic and self-leadership have no dimensions, transformational and transactional leadership styles have dimensions each of which may have different effect on KSC.

MAIN FOCUS AND OBJECTIVES OF THE CHAPTER

The main objective of this study was to find out, if leadership affects knowledge sharing culture. To accomplish this purpose, the leadership factors were separately correlated with knowledge sharing culture as shown in Figure 4 below:

Figure 4. Figurative presentation of leadership style verses knowledge sharing culture



Hypothesis of the Study

The following research hypotheses were tested:

H1: Transformational leadership affects KSC positively.
H2: Transactional leadership affects KSC positively.
H3: Laissez-faire leadership affects KSC positively.
H4: Self leadership affects KSC positively.
H5: Autocratic leadership affects KSC positively.

RESEARCH AND SAMPLE

The sample frame for this study comprised of a total of 158 participants including managers and middle managers working as knowledge workers from 130 enterprises from the Aegean Free Zone/Izmir/Turkey. Transformational, transactional, autocratic, self-leadership and laissez-faire leadership styles were investigated. Trust, openness, communication, reward system and management support dimensions were surveyed for the KSC. For analyzing survey results, factor analysis and ANOVA analysis with post hoc and stepwise tests were conducted.

The Aegean free zone (Izmir/Turkey) has a population of 13.900 workers, 2.720 office staff, 422 other and a total of 17.042 employees (economy.gov.tr, 2016). There are 220 companies in the Aegean Free Zone, but 107 of them are in the production/manufacturing industry (esbas.com.tr/en, 2016). Only companies that were thought to have a more homogenous culture were taken as samples. There are two reasons for being more homogenous; First, the organizations took into account the environment in which they operate because they choose to be in this zone. Secondly, the region is a closed region in general meaning that communication and relationships among organizations, is more restricted to the zone and the organizations are more connected because of joint activities (infrastructure, food, environmental cleaning, kindergartens, a certain amount of superstructure, cultural relations etc.) than with organizations operating out of the zone. In order to ensure uniformity, organizations that have a knowledge management system and operate in the manufacturing sector were chosen with Multistage Sampling (Mertens, 2010) method. That is why a cluster of manufacturing/production firms was chosen. Firms were chosen randomly in this cluster and top managers of these companies were invited to participate in the survey.

MAJOR FINDINGS OF THE STUDY

Table 2 presents the demographic information of the particiapnts.

As can be seen from the demographic statistics, presented in Table 2, nearly 45% of the participants were 26-32 years old followed by those who were between 33-42 years old. As regards the participants educationl levels, more than half of the sample was graduates. As for the participants gender, 43% were female and 57% were male. The study also established that there were very few participants with less than 1-year work experience.

Significance value, for homogeneous distribution of the variance .<0.5 is considered to be significant. According to the ANOVA analysis, leadership styles vary with demographic variables (Table 3).

Table 2. Demography of the participants

		Frequency	Percentage
Age	15–25	31	19.6%
	26–32	71	44.9%
	33–42	37	23.4%
	43–50	11	7.0%
	51 and above	8	5.1%
	TOTAL	**158**	**100.0%**
Gender	Female	68	43.0%
	Male	90	57.0%
	TOTAL	**158**	**100.0%**
Education	Primary School	5	3.2%
	Middle School	5	3.2%
	Post Graduate	11	7.0%
	Undergraduate	55	34.8%
	Graduate	82	51.9%
	TOTAL	**158**	**100.0%**
Work experience	Less than 1 year	6	3.8%
	1–5 years	56	35.4%
	6–10 years	6	23.4%
	21years and above	24	15.2%
	11–20 years	35	22.2%
	TOTAL	**127**	**100.0%**
Tenure in the last firm	Less than 1 year	29	18.4%
	1–5 years	65	41.1%
	6–10 years	13	19.6%
	21 and above	20	12.7%
	11–20 years	13	8.2%
	TOTAL	**140**	**100.0%**

Table 3. ANOVA analysis of leadership styles with demographics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.157	5	1.031	1.827	.112(a)
	Residual	72.264	128	.565		
	Total	77.421	133			

Predictors: (Constant), Leadership Factors

A post hoc analysis was conducted to see which of these values are most important. Post hoc analysis revealed that (Tukey and Games-Howell tests) university and postgraduate graduates have generally adopted transformational leadership model. However, female managers preferred the transformational, transactional or laissez-faire leadership model. In addition, managers and executives ages from 33-42 and 51 years and above, have had more choice of transformational leadership.

Construct validity is concerned with whether the measure actually taps into the concept being studied (Ramayah, Yeap, & Ignatius, 2014). There is no very simple way of establishing construct validity in this research. When this type of validity correlation analysis between items is tested there is a high correlation between items to ensure validity but not too high to cause colinearity. Construct validity is tested with factor analysis. Validation of the factor analysis constructs will be discussed in depth in the paragraphs below.

The knowledge sharing questionnaire was developed from Ryu, Ho & Han (2003), Albrecht (2001), Halis & Naktiyok (2003), and Gale (2000). It has five questions whose reliability results are presented in Table 4.

Multifactor Leadership Questionnaire (MLQ) (Avolio, Bass, & Jung, 1999) was used for leadership questions as a base. The Kaiser-Meyer-Olkin test, implementing leadership qualities of variables to factor analysis, is 0.715 and the Bartlett test shows that the variables are correlated highly enough to provide a reasonable basis for factor analysis (1970.560, P <000) (Leech, Barrett, & Morgan, 2015). According to factor analysis` results, some of the questions were excluded due to low eigen values and then reliability analysis is done with new questions set (Table 5).

After factor analysis of leadership and knowledge sharing culture new factors formed. Five leadership factors decreased into four factors and some of the dimensions of leadership styles formed new factors (Table 6). So one subscale of transactional leadership went under transformational leadership and transformational leadership with management by exceptions formed as factor 1, as factor 2, laissez-faire leadership with intellectual stimulation from transformational leadership subscale and contingent reward from transactional subscale formed, as factor 3 autocratic leadership has not changed and so is factor 4 self-leadership.

After explanatory factor analysis of knowledge sharing culture; trust, reward system and top management support, communication channels and cooperation factors are formed in order to explain leadership styles. These new factorial dimensions of the knowledge sharing culture were used in the correlation matrix.

A stepwise regression model is used for correlations between all the predictors with the outcome variable. In this model the variables are evaluated to assess which one when added to the model will increase R^2 the most. This continues until all the variables are considered and the highest R^2 has been found.

Table 4. Reliability test results on knowledge sharing factors

Factor	Alfa (α)
Trust	0.744
Openness	0.824
Communication channels and cooperation	0.910
Reward system	0.920
Top management support	0.856

Table 5. Total number of questions and questions excluded from the survey

	Factors		# of questions	# of questions excluded	Cronbach Alpha
Knlowldge sharing Culture	Trust		16	5	0.744
	Cooperation		14	5	0.824
	Communication channels		16	5	0.91
	Knowledge sharing related reward system		14	5	0.92
	Top management support		15	3	0.856
Leadership	Transformational Leadership	Idealized Influence	3	-	0.641
		Inspirational motivation	3	2	0.966
		Intellectual stimulation	3	-	0.979
		Individualized consideration	3	-	0.490
	Transactional Leadership	Contingent reward system	3	-	0.989
		Management by exception	3	1	0.538
	Laissez-faire Leadership		5	3	0.554
	Self-Leadership		9	3	0.703
	Autocratic leadership		5	1	0.98

Table 6. Factor analysis of leadership dimensions

	Eigenvalue	Explained variance %	Cumulative variance %
Factor 1: Transformational leadership with management by exceptions	4.35	11.77	11.77
Factor 2: Laissez-faire leadership, intellectual stimulation and contingent reward system	4.17	11.27	23.04
Factor 3: Autocratic leadership	3.88	10.49	33.53
Factor 4: Self leadership	3.13	8.46	41.99

Table 7. Stepwise regression analysis results

Model		R^2	Change statistics	Coefficients		
			Sig. F.	Beta	t	Sig.
1	(Constant)	0.36	.000	.	13.332	.000
	Laissez-faire leadership				4.876	.000
2	(Constant) Laissez-faire leadership Transformational leadership	0.40	.016	.245	10.749	.000

Table 8. Correlation matrix

		Means	Self-leadership	Autocratic leadership	laissez-faire leadership and reward system	Transformational leadership with Management-by-exceptions	Trust	Reward system and top management support	Communication channels and Cooperation
Self-leadership	Correlations	0.188	1.000						
Autocratic leadership		0.610	0.037	1.000					
Laissez-faire leadership, Intellectual Stimulation and Contingent Reward system		1.181	-0.030	-0.047	1.000				
Transformational leadership with Management-by-exceptions		0.019	0.030	0.016	0.020	1.000			
Trust		0.010	0.788	-0.011	0.080	-0.001	1.000		
Reward system and top management support		0.820	0.143	0.868	-0.283	**0.371****	0.060	1.000	
Communication channels and Cooperation		0.981	-0.089	-0.066	0.787	**0.557****	-0.015	0.048	1.000
**Correlation is significant at the 0.01 level (2-tailed).									

From stepwise regression model (Table 7) of leadership styles, the most predicting knowledge sharing culture are laissez-faire and transformational leadership factors which explain 40% of the total variance of knowledge sharing culture (R2 = 40). Other variables (self-leadership, autocratic leadership and transactional leadership) are excluded due to lack of contribution to knowledge sharing culture.

Table 8 shows the correlation matrix of relationships between knowledge sharing culture and leadership factors.

According to the correlation matrix of new formed factors of leadership styles and knowledge sharing culture determinants (Table 8), there is a positive relation between transformational leadership with management-by-exceptions, reward system and top management support and communication channels and cooperation. Highest correlation is .557 and is between transformational leadership with management-by-exceptions factor and communication channels and cooperation factor. Laissez-faire leadership is seen as important on knowledge sharing in the stepwise regression but as in a laissez-faire leadership and reward system factor it does not seem to be correlate with knowledge sharing.

DISCUSSION AND RECOMMENDATIONS

The aim of this chapter was to find out the most effective leadership style on knowledge sharing culture. Even hough empirical evidence showed that there is no one effective dmesnion, leadership style promotes KSC. Therefore dimensions of leadership styles were evaluated with factor analysis to find out which dimensions of different leadership styles are most effective when they overlap. These overlapping

dimensions formed new factors which were evaluated for relationship with KSC. The findings of the study showed that effective knowledge sharing cannot be authorized or mandated (Bock, Zmud, Kim, & Lee, 2005). Because of knowledge interflow between units of an organization, collaboration between each other is crucial. This collaboration depends on norms/rules behavior which are defined by culture. Knowledge sharing can be escalated by organizational culture components which are collaborative climate, trust, top management support, openness and mentoring programs (Yang, 2007).

Leadership is the key factor in a knowledge sharing culture. But classical leadership styles cannot explain the impact of leadership to knowledge sharing. Transformational leadership is the most effective style of leadership especially when used by management together with exceptions dimension from transactional leadership style. Also laissez-faire leadership style merged with intellectual stimulation and contingent reward system, but this factor had no impact on knowledge sharing culture, even if laissez-faire leadership itself had high regression with knowledge sharing. So highly skilled members don't want any intellectual stimulation or contingent reward system. In other words, rewards are important but not as a contingency. This is because, as employees operating on the theory that "knowledge is power" may become disinclined to share knowledge by only means of sole individual performance rewards. Rather incentive systems based on group and organizational performance may help knowledge sharing (Oz˙go & Brewster, 2015). As the correlation coefficient of laissez-faire leadership is high, but there is however no significance on knowledge sharing. That means employees need some kind of direction/vision but not constant monitoring by the leadership.

According to ANOVA results, age is also an important factor in a leadership style in that senior managers as leaders tend to be more transformational. So firms can start education programs that might help leaders to strengthen their transformational leadership dimensions because transformational leadership is more effective on knowledge sharing. Another choice for firms to ensure KSC is to rely on senior or more experienced leaders to be role models in knowledge sharing.

Team based reward systems, instead of individual based ones and feedback systems affect KSC positively. Weak positive relations were found with transformational, transactional and laissez-free leadership (Rahim, Salleh, Ahmad, & Mustapha, 2015), but they preferred holistic approach instead of studying leadership style dimensions. Also, as Crawford mentioned (Crawford, 2003), instead of laissez-faire leadership, management with exceptions style and proper reward systems are preferred (McDermott & O'Dell, 2001).

After factor analysis, laissez-faire/reward system leadership, transformational-management with exceptions leadership and autocratic leadership factors formed as new leadership styles which are preferred as management styles by the research paticipants. Trust, sharing data freely, friendship and teamwork were found to be important factors affecting KSC. Transformational leadership with management-by-exceptions factor had positive and significant effects on knowledge sharing factors, which are reward system and top management support (0,371) and communication channels and cooperation (0,557). So only H1 is accepted, but partly because newly formed "Factor 1" is not truly transformational leadership. Also H2 and H3 are accepted partially because newly formed "Factor 2" contains both transactional leadership factor and laissez-faire leadership. H4 and H5 were rejected because there is no statistical significance.

It can be concluded that for knowledge sharing, leaders should focus on individual care, inspiring motivation, stimulating intellectual assets and motivating their staff. Again, this result shows that employees need transformational leaders who will let them find solutions or development for themselves. Leaders have to let people figure out their jobs for themselves within the context of the organization and the leadership style that they have created (Boone, 2000).

FUTURE RESEARCH DIRECTIONS

More leadership styles' relationships should be researched in knowledge sharing culture. Effects of organizational structure and new technologies are also very important on knowledge sharing. Especially as leadership is also affected by new technological developments, new leadership styles such as, virtual leadership and so the organizational structures leading to networked firms are equally worth exploring.

CONCLUSION

Based on the findings discussed above, it can be concluded that knowledge sharing behavior was not related to one specific leadership style, but to various factors which are laissez-faire/reward system leadership, transformational-management with exceptions leadership and autocratic leadership. In the knowledge sharing culture members of the firms need vision, personal consideration, but not control or they want to be told what is to be done but not how it should be done. Leaders should avoid paternalistic messages and show trust in their employees by sharing information (Boone, 2000). Also an appropriate reward system should be determined and clearly expressed for every member.

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KEY TERMS AND DEFINITIONS

Knowledge Sharing: A transaction process of knowledge among different parties.

Knowledge Sharing Culture: An environment and process where both employees motivated to share and knowledge has through channels in which to flow.

Leadership: Leading and influencing to accomplish objectives.

Management-by-Exceptions: Leadership subscale that leaders don't interfere unless something wrong.