

# Study of the relationship between Emotional Intelligence (EI) and Knowledge Sharing (KS)

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## Abstract

Firms can obtain competitive advantages from their employee's knowledge sharing behaviors. Due to the importance of knowledge in today's competitive world, an understanding of how to enhance employee knowledge sharing has become critical. Since employees' knowledge sharing intentions are one of the strong predictors of actual employee knowledge sharing behavior. This paper presents a descriptive-correlative research to understand the relationship among the emotional intelligence of employees and knowledge sharing in lubricant industry. The hypotheses are tested on data collected from 230 employees of a Lubricant Company in Iran; samples were selected by simple random sampling. The EI and KS questionnaires were used as research instruments and the data was analyzed by "Structural Equation Modeling" by "Lisrel" software. The results showed that there is a meaningful positive relationship between emotional intelligence and knowledge sharing. Limitations of this study and future research directions are also discussed.

**Keywords:** Emotional intelligence (EI); Knowledge Sharing; Knowledge Exchange

## 1. Introduction

Over the past decades, the world has been experiencing vital changes. The key to alter is awareness, sharing ideas and arising with new and innovative ways that of staying previous the competition. There's an excellent want these days to accumulate, utilize and share knowledge. Nowadays economies have evolved into knowledge economies and are characterized by the actual fact that knowledge becomes the main issue of production within the value-adding economic activities. Within the knowledge economy, information and data effectively overshadow physical assets, (Thakur et al., 2013:7-12) and companies uncover the most opportunities – and derive the most value – from one intellectual asset in particular: Knowledge. (Coveo, 2013:3-4)

The key to growth within the rising atmosphere is in innovation that is associate outcome of development of data. Organizations are discovering that they have to try and do a much better job of capturing, distributing, sharing, preserving, securing, and valuing their precious knowledge so as to remain previous their competitors. (Tsai et al., 2006:60-78) By managing its knowledge assets, associate enterprise will improve its aggressiveness, ability and increase its probabilities of success. (Heredia et al., 2013:133-147)

This paper focuses on how emotional intelligence could be improved to better support knowledge sharing within the specific case company of an Iranian Lubricant company. The article also exemplifies how could arrive at specific recommendations for Lubricant Industry. These outcomes of the research project can guide organizations who wish to improve their Knowledge Sharing.

This remainder of this paper is organized as follows. Section 2 presents the study's problem statement. Section 3 reviews the study's literature. Section 4 describes the research model and hypotheses. Section 5 explains the research methodology. Section 6 examines the research results. Section 7 discussion and conclusion of the results. Section 8 provides the limitations of this research.

## 2. Problem Statement

Most knowledge and particularly know-how tends to be implicit, difficult to communicate in an easy form, and sometimes impossible to document. Making knowledge available to others should be the central activity of the knowledge sharing organization. (Sanchez, et al., 2013:388-397) In fact, KS is the communication process in which one or two parts of organization participate in knowledge transfer to develop new technologies, new products, and etc. Therefore knowledge sharing is widely recognized to be a central component of successful knowledge management. (Seba, et al., 2012:372-380). As employees are knowledge resources for organizations, their tendency to share knowledge can be affected by not only organizational factors but also individual factors. Emotions have important role as much as other well known abilities for task performance (Cote et al., 2006:1-28). In order to encourage employees to share their knowledge, changes in behaviors and attitudes of employees can be necessary. (Gurbuz et. al., 2012: 21-31) Due to this importance, an understanding of how to enhance employee knowledge sharing has become critical. Effectively encouraging employees to share useful knowledge across the organization can increase and sustain a firm's competitive advantages. Numerous studies on organization and knowledge management (KM) have proven that employee knowledge sharing enhances firm performance such as absorptive capacity and innovation (Liu et al., 2011:44-52).

Since employees' knowledge sharing intentions are one of the strong predictors of actual employee knowledge sharing behavior (Hau, et al., 2013:356-366), many researchers have studied its various contributing factors. Prior KM studies, however, seem to be limited in that they did not address employees' abilities to practice effective control over their emotional lives. Such individual differences are now thought of as difference in emotional intelligence (Mayer, Salovey, 1990:772-781). Emotional intelligence - the capacity to acquire and apply emotional information- as one of the organizational intelligence dimensions, in regard to study is a new component that many researchers interest in its application in different matters. The emotional intelligence theory provide a new view about predicting of success factors in life including work activities, because many personality characteristics such as sympathy, self-tendency. Optimism, self-motivating, controlling of stress, self-consciousness and emotion management paves the way for success in different grounds of various job-related outcomes, emotional intelligence is indicator of social and personal emotional dimensions that often in daily activities, is to be considered. (Khanifar et al., 2012:564-582). It has been learned that since Emotional Intelligence is not a trait, appropriate intervenient programs can inculcate a combination of dynamic skills required for the same. Thus emotional intelligence becomes an essential factor to be considered in an organizational setup. (Antony, 2013:110-115)

Considering that knowledge sharing consists of social interactions between employees (Chow et al., 2008:458-465) and such interactions are influenced by the relationships between individuals (Nahapiet et al., 1998:242-266), employee emotional intelligence has been known to play a major role in forming their knowledge sharing intentions (Chang et al., 2011:9-18). If the owners of knowledge have high emotional intelligence, they will manage their own emotions and understand others' emotions and changing tendency of the owner and triggering to share the knowledge will be easy. (Gurbuz, et al., 2012:21-31) Therefore, the objective of this study is to examine the relationship between emotional intelligence and knowledge sharing.

#### **The Main Objective**

The study of the relationship between emotional intelligence and knowledge sharing

#### **The Secondary Objective**

Study of the relationship between employees' Self-awareness and knowledge sharing

Study of the relationship between employees' Self-management and knowledge sharing

Study of the relationship between employees' Social awareness and knowledge sharing

Study of the relationship between employees' Relationship management and knowledge sharing

Since the relationship between Emotional Intelligence and knowledge sharing has not been yet verified in the literature, this study tries to answer the following three research questions:

- (i) Is there any significant relationship between knowledge sharing and Emotional Intelligence?
- (ii) Is it expected that due to Emotional inelegance factors, employees share their knowledge?
- (iii) Which of the sub dimensions of emotional intelligence and how they relate knowledge sharing between individuals?

### **3. Review of Literature**

This section casts light on the theoretical background for our study's major constructs:

#### *3.1. Emotional Intelligence*

Emotional intelligence was originally conceptualized by Salovey and Mayer (1990), they defined emotional intelligence as the ability of an individual to monitor one's own and others emotions, to discriminate among the positive and negative effects of emotion and to use emotional information to guide one's thinking and actions. (Dissanayaka, et al., 2010:8) However emotional intelligence became popular outside academia by Daniel Goleman. Emotional intelligence theory has evolved from definitions of intelligence; (Gurol et al., 2010:3246-3247). one of the most important mechanisms of human, that involves the ability to adapt to the environment. (Darabi, 2012:2991-2997) Historically, understanding the nature of intelligence and emotion has been difficult. Definitions of intelligence vary and include behaviors associated with information processing, experiential learning, environmental adaptation, thought and reasoning patterns. Emotions are complex reaction patterns involving behavioral and physiological elements to personally significant events. Intelligence and emotions have been investigated as components of mental operations and as physiological and behavioral response patterns within environments. However, investigations into the nature of intelligence and emotions have not resulted in a clear conceptualization of either concept (Gurol et al., 2010: 3246-3247).

Philosophical considerations of the relations between thought and emotion in Western culture go back over 2000 years. However, some researchers concentrate on activities in psychology from 1900 onward, using a fivefold division of years: 1, from 1900 to 1969, during which the psychological study of intelligence and emotions were relatively separate; 2, from 1970 to 1989, when psychologists focused on how emotions and thought influenced one another; 3, from 1990 to 1994, which marked the emergence of emotional intelligence as a topic of study; 4,

from 1995 to 1996, when the concept was popularized, and 5, the present era of clarifying research. (Ciarrochi, 2006:4)

The term emotional intelligence itself was used in the 1960s in an incidental fashion in literary criticism and psychiatry. Two decades later, it was employed more extensively in a dissertation. In 1990, two articles were written on EI that explicitly defined EI and developed a theory and demonstration measure of it (Mayer, et al., 2004:197-215).

Mentioned concept is derived from “social intelligence” (Dissanayaka, et al., 2010:8) that was first identified by Thorndike (1920). Thorndike (1920) defined social intelligence as “the ability to understand and manage men and women, boys and girls – to act wisely in human relations” (Lam et al., 2012:149-174). Unlike abstract intelligence, which refers to the ability to understand and manipulate symbols, or concrete intelligence, social intelligence refers to the ability to understand and relate to people. (Dissanayaka, et al., 2010:8) Following Thorndike, Gardner brought the multiple intelligence concept to the agenda expanding the concept of social intelligence in 1983. His concept includes interpersonal and intrapersonal intelligences that are closely related to social intelligence in his theory of multiple intelligences. Although Gardner did not use the term emotional intelligence, his ideas of interpersonal and intrapersonal intelligences provided the basis for the concept of emotional intelligence. (Lam et al., 2012:149-174). His research focused on the idea that personal and interpersonal intelligence is at least important as standard intelligence. According to Gardner, social intelligence consists of individuals’ personal and interpersonal intelligence. Interpersonal intelligence is defined as the ability symbolizing individual’s intelligence that is interested in one another and complex and high differences of emotion groups, while personal intelligence is defined as the individual’s being aware of his/her own intelligence and other personal skill (feelings, character, motivation and intentions) in his/her relationships with others and discriminating these from each other. (Gurbuz et al., 2008:176)

Goleman (1998:317) defined emotional intelligence as “the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and in our relationships. (Gurbuz, et al., 2012:21-31) His emotional intelligence framework encompasses four competencies. (1) Self-awareness is the ability to accurately perceive one’s emotions and remain aware of them as they happen, including the ability to manage one’s response to specific situations and people. (2) Self-management is the ability to be aware of one’s emotions and have the flexibility to positively direct one’s behavior in response to those emotions, to manage emotional reactions in all situations and with all people. (3) Social awareness is the ability to accurately identify the emotions of other people and thus understand the effects of those emotions, that is, to understand what other people are thinking and feeling even though the perceiver does not feel the same way. (4) Relationship management is the ability to use awareness of one’s own emotions and those of others to successfully manage interactions, that is, to provide clear communication and effectively handle conflict (Golman, 2004:5-336).

Bar-On (2006:14) describes emotional intelligence as having both emotional and social components and “using that intelligence to manage personal, social and environmental change by realistically and flexibly coping with the immediate situation, solving problems and making decisions” (Benson, 2010:49-50).

Bar-On studies on human brain demonstrates that one of the more convincing proofs that emotional intelligence resides in brain areas distinct from those for IQ. Other findings using different methods support the same conclusion. Taken together, this data tell us there are unique brain centers that govern emotional intelligence, which distinguish this set of human skills from academic (that is, verbal, math and spatial) intelligence- or IQ, as these purely cognitive skills are known- as well as from personality traits. (Golman, 2011:5-10)

Emotional intelligence is the self of all worker-related emotions detection, emotional self-management, self-motivated, social detect and social skills (Chin et al., 2013: 267-273).

The most controversial and unsubstantiated assertions made about the importance of emotional intelligence include: emotional intelligence is more matter than IQ and that; emotional intelligence can preserve our most prized relationships for on-the-job success, in the market force reshaping work life. (Golman, 2005:33-164)

Emotional intelligence skills and competencies are deemed necessary for workplace success, job performance, and effective leadership. The attributes of emotional intelligence are valued in communications in virtual teams (Pitts et al., 2012), job satisfaction (Chin et al., 2013:267-273) and organizational commitment and citizenship behavior. (Antony, 2013:110-115) Having analyzed the related literature, it is seen that the majority of the studies on emotional intelligence had been carried out on communications. The fact that knowledge sharing between the employees is nearly compulsory and is directly related to the employees’ communications, once more drawing our attention to the importance of emotional intelligence. In summary, the existing literature shows that emotional intelligence is worth applying to deepen our understanding of employees’ knowledge sharing intentions.

### 3.2. Knowledge Sharing

We are living in a knowledge based society in which knowledge available to the firms is becoming strategically

important resource. Some even consider it as core competence and performance driver of the firms (Yesil et al., 2013: 217-225) It is becoming increasingly recognized, however, that only a subset of the actual knowledge residing somewhere within business organizations is of strategic significance. Creating and sharing knowledge that is actually relevant to strategic decision making (as opposed to merely day-to-day operations) poses a non-trivial challenge. This inheres in the limited amount of time and mental capacity that organizational members have to process new information and knowledge (Kasper et al., 2013: 326-338) Knowledge sharing is considered to be one of most important aspect of knowledge management (Gupta et al., 2000:71-80) and the success of knowledge management initiatives depends on knowledge sharing (Wang et al., 2010:115-131).

Research on knowledge management argues that organizational knowledge at collective level, and individual learning arise from communication, exchange and sharing between colleagues. Employees contribute to both their own and the organization's knowledge accumulation by reaching for new knowledge and producing knowledge during their activities. In its simplest form, defined as transferring of knowledge, knowledge sharing has its own place and importance in knowledge management. (Özler, et al., 2006: 137-151)

Knowledge sharing refers to the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004: 352-364). Knowledge sharing can occur via written correspondence or face-to-face communications through networking with other experts, or documenting, organizing and capturing knowledge for others. Although the term knowledge sharing is generally used more often than information sharing, researchers tend to use the term "information sharing" to refer to sharing with others that occurs in experimental studies in which participants are given lists of information, manuals, or programs. (Wang, et al., 2010:115-131)

Knowledge-sharing activities will provide the members of any group with opportunities to exchange ideas and take part in cooperative activities, so that the effectiveness of members' performance in contributing to the success of their organization will be maximized. (Ghorbani, 2013)

The knowledge sharing definition was narrowed down by knowledge management concept as the process that mainly is a capturing process of firm and person expertise while it distribute and reside it to the place that it can assist to produce the hugest returns for the firm and people as well. (Krogh, 2000: 29) Sharing knowledge is not just an exchange of information that can impact the working relations, power distribution, and influential patterns and also changing the way people describe their duties and responsibilities (Momeni et al., 2013:518-524.). It is also refereeing to transfer activities or knowledge dissemination from one individual or organizational group to other ones (Lee, 2001: 329). In this process, the knowledge is assumed as a production resource part that should be shared, improved and also applied for providing good ideas for a defined challenge or issue

Knowledge sharing can be defined as an exchange of knowledge between two individuals: one who communicates knowledge and one who assimilates it. In knowledge sharing, the focus is on human capital and the interaction of individuals. Strictly speaking, knowledge can never be shared. Because it exists in a context; the receiver interprets it in the light of his or her own background. (Paulin et al., 2012:81-91)

Knowledge sharing is thought as a social behavior and many physical, technological, psychological, cultural and personal factors have effective roles in not only supporting but also limiting knowledge sharing. Despite many advantages of knowledge sharing, researchers and implementers often argue that in many cases, in fact, individuals abstain from sharing their knowledge with others (Davenport, 2008:88); moreover, they say that act of sharing knowledge is unnatural and there are many reasons for people to abstain from sharing their knowledge with others. Some of what obstruct sharing knowledge between colleagues are the following factors: the relations between the source of knowledge and the receiver of the knowledge aren't extensive, according to Smith and McKeen (2003) rewards and motivation aren't enough for sharing, according to Ikhsan and Ronald (2004) time is insufficient, and knowledge sharing culture is lacking. Furthermore, inadequacy in understanding what to share with whom, limited appreciation of sharing knowledge and fear of acquiring false knowledge may also hinder knowledge sharing acts (Majid et al., 2009:22).

Knowledge sharing process is conceptualized as two dimensions namely knowledge donating and knowledge collecting (Van Den Hooff et al., 2004:117-130). Knowledge donating is defined as the process of individuals communicating their personal intellectual capital to others, while knowledge collecting is defined as the process of consulting colleagues to encourage them to share their intellectual capital (Lin et al., 2007:315-332).

Another definition states that knowledge sharing is the process through which one unit (e.g. individual, team, and department) is affected by the experience of another (Argote, et al., 2000:1-8) It is a process by which knowledge held by individuals is converted into a form that can be understood, absorbed, and used by other individuals. (Bouma, 2011:7) Gupta and Govindarajan (2000) state that knowledge sharing can be conceptualized in terms of five elements: (1) perceived value of the source's knowledge, (2) willingness of the source to share knowledge, (3) existence and richness of transmission channels, (4) willingness of receiver to acquire knowledge from the source, and (5) the absorptive capacity of the receiver.

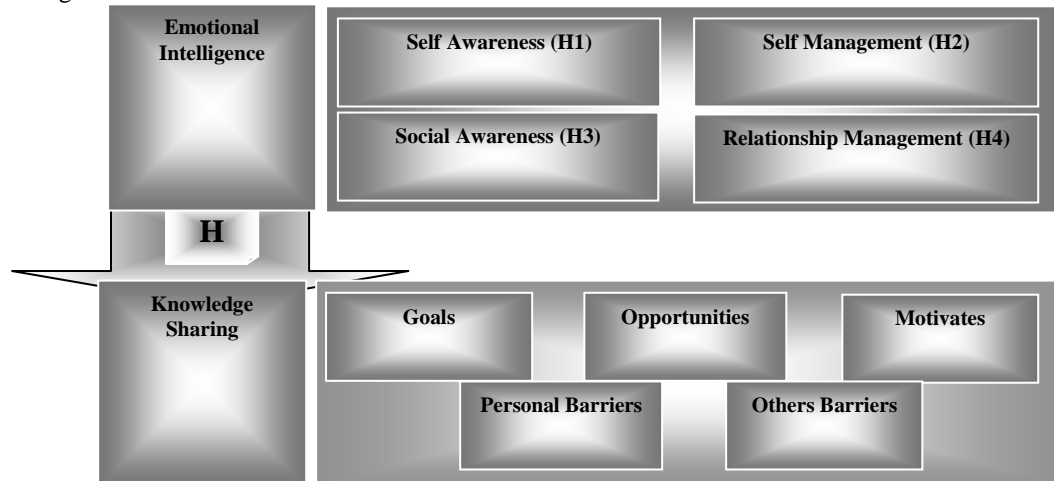
This research looks particularly at the second aspect and tries to understand the relation between emotional



intelligence as a source intention to share its knowledge.

#### 4. Research model and hypotheses

Emotional intelligence is regarded as prominent antecedents of knowledge sharing. Therefore, the antecedents in this research model consist of emotional intelligence dimensions, as visualized in Figure 1. This study adopts D. Goleman (2004) model as the theoretical basis of the research model. This section presents the research model and related hypotheses for our study based on this model, which described the relationship between four important concepts identified by reviewing literature within the field of emotional intelligence and knowledge sharing.



The first concept portrays the four competencies within the emotional intelligence framework: the 'Self Awareness', 'Self Management', 'Social Awareness' and the 'Relationship Management'. The second concept explains the knowledge sharing sub-dimensions that these competencies may relate.

Based on the explanation of the suggested links between main research variables, namely, emotional intelligence and knowledge sharing, we could formulate the hypotheses of this study as follows:

##### The Main Hypothesis

H. There is a meaningful relationship between emotional intelligence and knowledge sharing.

##### The Subsidiary Hypothesis

H1. There is a meaningful relationship between employees' Self-awareness and knowledge sharing.

H2. There is a meaningful relationship between employees' Self-management and knowledge sharing.

H3. There is a meaningful relationship between employees' Social awareness and knowledge sharing.

H4. There is a meaningful relationship between employees' Relationship management and knowledge sharing.

#### 5. Research methodology

This section describes item measurement, validity and reliability of measurement scales and data collection in our research.

##### 5.1. Measurement

The instruments for testing the research model were developed by modifying existing validated scales to fit the emotional intelligence and knowledge sharing context. Before the survey, the instruments were reviewed by four academic researchers and three industry executives to check for problems with wording, format, content, question ambiguity. Further, a preliminary survey instrument was pre-tested by 30 senior managers and the survey items were modified based on their feedback. In order to measure the knowledge sharing variable, 20 questions associated with knowledge sharing process, which show 5 components of Knowledge Sharing in accordance with the Jacob, E. and Roodt, G. (2007), were used. Second questionnaire is emotional intelligence questionnaire of Bradberry & Greavese (2005). It contains 46 questions which show 4 components of emotional intelligence. A five-point Likert scale was used for all survey items, ranging from "always" (one point) to "never" (five points) for EI survey items and "to great extent" (one point) to "not at all" (five points) for KS survey items.

##### 5.2. Validity and Reliability of Measurement Scales

Kirk and Miller (1986: 21) rightly make the point that "no experiment can be perfectly controlled, and no measuring instrument can be perfectly calibrated. All measurement, therefore, is to some degree suspect." Notwithstanding, it is important and well accepted in research that significant attempts have to be made to assess the validity and reliability of measures to increase the credibility of conclusions drawn from them.

##### 5.2.1. Validity

Simply put, validity refers to how well items or a scale measures what it purports to measure (Ali Ahmadi, et al.,

2008: 14). Validity gives the researchers, their peers and the society at large the confidence that methods selected are relevant to the quest for scientific truth (Straub et al, 2004: 383). Content and construct validities were considered in this study. The literature review established the basis of content validity for the survey instrument. The purpose of construct validity is to show that the items measure what they purport to measure. (Rashad et al., 2010:70) Factor Analysis was done to determine the construct validity. One aspect in Factor Analysis is KMO & Bartlett's Test of Sphericity that is a measure of sampling adequacy that is recommended to check the case to variable ratio for the analysis being conducted. The sample was considered adequate if i) KMO value was more than 0.5 and ii) Bartlett's test was significant (p-value less than 0.05). (Yusoff, 2010: 3). The results of the measurement scales are shown in Table 1.

Bartlett's Test of Sphericity			
P-Value	df	. Chi-Square	KMO Test
0.000	2346	1490.540	0.677

Table 1: Results of Measurement Validation

### 5.2.1. Reliability

Whereas construct validity is concerned with measurements between constructs, reliability addresses the consistency within a construct or scale (Straub et al, 2004, p 399). The internal consistency in this study is measured by Cronbach's alpha. The lower limit of 0.6 is considered acceptable for newly developed scales and 0.7 for established scales. (Rashad et al., 2010:70) Cronbach's coefficient alphas were calculated for the items of each survey construct. The results of the measurement scales are shown in Table 2.

N of Items	Cronbach's Alpha
20	0.794
46	0.924
66	0.927

Table 2: Results of Measurement Reliability

### 5.3. Sample and data collection

The data for this study were collected from a lubricant company which was consisted of 500 individuals. The statistical sample of this research for the said society has been selected based on, Kerjcie and Morgan Determining Sample Size for research activity that was obtained from 230 individuals. The corporate employees, independent from their positions were invited to participate in our research in the study's online survey. With the full support of their management team, we e-mailed the employees of these companies a direct link to the electronic questionnaire, soliciting their participation in our survey. The management teams of each section sent their employees several formal notifications to encourage them to answer our electronic questionnaire. The survey was conducted from September 5, 2013 to September 30, 2013, obtaining 230 valid responses. Table 3 shows the respondents' characteristics according to demographics.

Table 3: Demographical Characteristics of the Sample

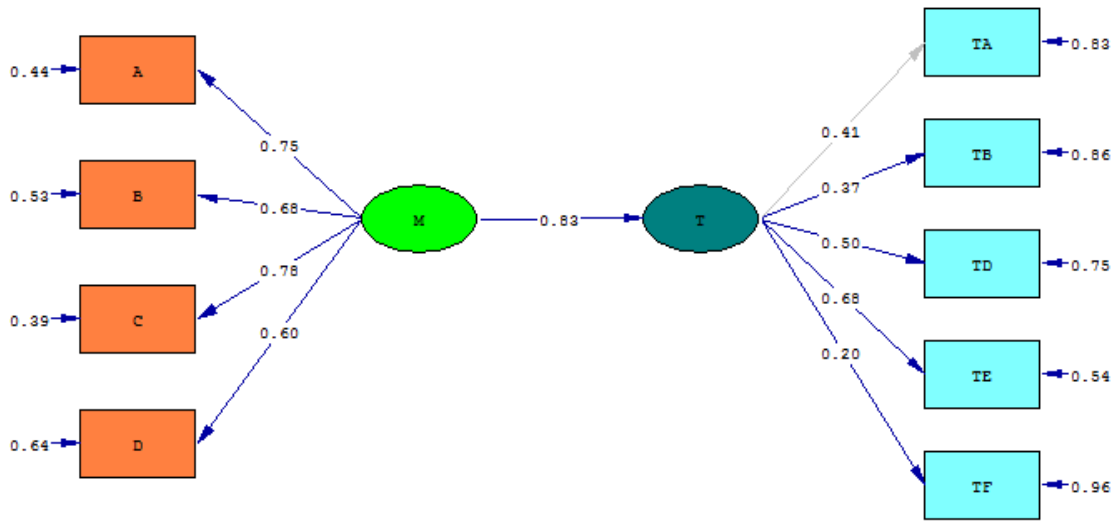
Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 30	65	28.3	28.3	28.3
	30-40	125	54.3	54.3	82.6
	40-50	37	16.1	16.1	98.7
	50 and over	3	1.3	1.3	100.0
	Total	230	100.0	100.0	
Educational level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under graduate	2	.9	.9	.9
	High school graduate	35	15.2	15.2	16.1
	Diploma	58	25.2	25.2	41.3
	BS	107	46.5	46.5	87.8
	MA	28	12.2	12.2	100.0
	Total	230	100.0	100.0	
Work Experience		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 5 years	44	19.1	19.1	19.1
	5-10 years	82	35.7	35.7	54.8
	10-15 years	65	28.3	28.3	83.0
	15-20 years	26	11.3	11.3	94.3
	Over 20 years	13	5.7	5.7	100.0
	Total	230	100.0	100.0	
Position		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Senior Manager	8	3.5	3.5	3.5
	Junior Manager	24	10.4	10.4	13.9
	Senior Expert	22	9.6	9.6	23.5
	Expert	97	42.2	42.2	65.7
	Officer	59	25.7	25.7	91.3
	Labor	20	8.7	8.7	100.0
	Total	230	100.0	100.0	

Table 3 shows that according to age distribution of the sample, the age group 30-40 (54.3%) is more than the others. This distribution shows that the sampling is composed mostly of individuals with ages between 30 and 40. According to Educational level distribution of the sample, 46.5% of them have university degree (BS), few of them are under graduate (0.9%). According to working experience distribution of the sample, while most of them have working experience between 5-10 and 10-15 (35.7% and 28.3%), few of them have working time of over 20 years (5.7%). According to Position distribution of the sample, the Experts' group (42.2%) is more than the others. As a whole, the data show that most of the employees have relatively medium working experience, which can be an indicator of medium circulation of employment in mentioned company. The distribution of education level of the subjects shows that the biggest participant category is university graduates (46.5%), which can be an indicator of high education level of employees.

## 6. Research results

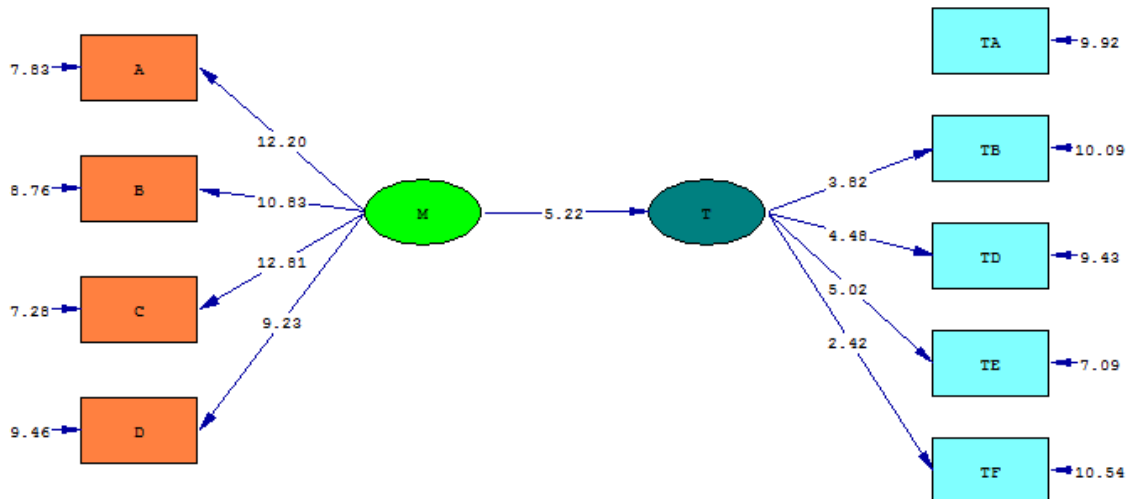
Structural equation modeling (SEM) was conducted to estimate the fitness of the model, and to perform the SEM analysis the LISREL 8.53 program was used. The beginning is by drawing a path diagram. Drawing a path diagram is useful to analysis Lisrel technique which connects important concept of model. This diagram shows the directions between emotional intelligence and knowledge sharing. Figure 2 and 3 shows the path diagram of Emotional Intelligence "M" components (Self Awareness "A", Self Management "B", Social Awareness "C" and

the Relationship Management “D”) and Knowledge Sharing “T” components (Goals “TA”, Opportunities “TB”, Motivates “TD”, Personal Barriers ”TE” and Others Barriers “TF”).



Chi-Square=38.79, df=26, P-value=0.05109, RMSEA=0.046

Figure 2: Results of the structural equation model (Estimated Standard Coefficient Diagram)



Chi-Square=38.79, df=26, P-value=0.05109, RMSEA=0.046

Figure 3: Results of the structural equation model (T-value Diagram)

T-Values diagram identifies what variables model has been proven (Du toitet al., 2001:10). Here, the diagram has identified that EI in SMEs significantly and positively influenced KS ( $\beta= 5.22$ ).

The most practical indices were used to estimate the model fitness, including:  $\chi^2/df$ , Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Root Mean Square Residual (RMR), Normed fit index (NFI), Non-Normed fit index (NNFI) and Comparative Fit Index (CFI). Scores lower than 3 for the  $\chi^2/df$  index reveals an acceptable rate; in other words, smaller scores in this index indicate a better fitness of the model. An RMSEA equal to or lower than 0.08 is suitable for tested models. GFI show to what degree the model has better fitness when compared to the model’s non-existence. For the model to be acceptable, GFI, NFI, NNFI and CFI should be equal to or higher than 0.90 and RMR should be equal to or lower than 0.05 (Gholami et al., 2013:6).



Table 4 shows the Fitting Indexes for research model.

Fitting Index	Desired Value	Results
$\chi^2/df$	<3/00	1.49
GFI	>0.90	0.96
RMSEA	<0.08	0.046
RMR	<0.05	0.043
NFI	>0.90	0.92
NNFI	>0.90	0.96
CFI	>0.90	0.97

Table 4: Fitting Indexes

For evaluation whole goodness of fitting of research model chi-square test and (RMSES) have used. Test results show that the index RMSEA or Root Mean Square Error of Approximation is less than 0.08 (RMSEA = 0.046). Large amount of chi – square shows bad goodness of fitting and small amount of chi – square shows good goodness of fitting of model. For evaluating and judging about largeness and smallness of chi – square it’s better to use freedom degree and P-value. Considering the freedom degree of this study, chi – square endorses the validity of the model. In total, one can say the examined model has an appropriate fitness, and fit well real world. Table 5 shows Test results and outputs of Lisrel software for research model.

Chi-Square	df	P-value	RMSEA
38.79	26	0.05109	0.046

Table 5 - Test results and output of Lisrel software

### 6.1. Hypotheses Tests

The results of each hypothesis are discussed in details.

#### 6.1.1. Findings related to Main Hypothesis

It was hypothesized that emotional intelligence is positively related to knowledge sharing (Main Hypothesis). The result of the study suggests that main hypothesis is supported as shown by the T-value coefficient of 5.22 in figure 3. The value of path coefficient supports the hypothesis as shown in table 6.

Result	Standard Coefficient	Meaningful T- value	T- value Coefficient	Dependent Variable	Independent Variable	Hypotheses
Confirmed	0.83	1.96	5.22	KS	EI	Main Hypotheses (H)
$R^2 = 0.56$		$T = 0.21*A + 0.16*B + 0.37*C + 0.20*D$				

Table 6: Main Hypotheses Test

This result provides empirical evidence for enabling relationship between emotional intelligence and knowledge sharing. The result ensures that as the level of employees’ emotional intelligence increases, it promotes the knowledge sharing. Thus the total structural equation model of relationship of variable acquisition of emotional intelligence and knowledge sharing among the employees of the Iran oil lubricant company is approved.

#### 6.1.2. Findings related to Subsidiary Hypothesis

**H1:** It was hypothesized that there is a meaningful positive relationship between employees’ self-awareness and knowledge sharing (Hypothesis 1). The result of the study as shown by the T-value path coefficient of 2.17 in figure 3, suggests that there is a statistically significant relationship between employees’ self-awareness, sub-dimension of emotional intelligence and knowledge sharing. Details are shown in Table 7.

Result	Standard Coefficient	Meaningful T- value	T- value Coefficient	Dependent Variable	Independent Variable	Hypotheses
Confirmed	0.21	1.96	2.17	KS	Self-awareness	(H1)
$R^2 = 0.56$		$T = 0.21*A + 0.16*B + 0.37*C + 0.20*D$				

Table 7: H1 Test

**H2:** Hypothesis 2 was that there is a meaningful relationship between employees’ self-management and knowledge sharing. The results suggest that hypothesis 2 is not supported as shown by the T-value coefficient of 1.82 in figure 3. The value of path coefficient doesn’t confirm the hypothesis as shown in Table 8.

Result	Standard Coefficient	Meaningful T- value	T- value Coefficient	Dependent Variable	Independent Variable	Hypotheses
Denied	0.16	1.96	1.82	KS	Self-management	(H2)
$R^2 = 0.56$		$T = 0.21*A + 0.16*B + 0.37*C + 0.20*D$				

Table 8: H2 Test

**H3:** There is a positive and meaningful relationship between employees' social awareness and knowledge sharing (Hypothesis 3). The result of the study suggests that hypothesis 3 is confirmed as shown by the T-value coefficient of 3.39 in figure 3. The value of path coefficient confirms the hypothesis as shown in Table 9.

Result	Standard Coefficient	Meaningful T- value	T- value Coefficient	Dependent Variable	Independent Variable	Hypotheses
Confirmed	0.37	1.96	3.39	KS	Social awareness	(H3)
$R^2 = 0.56$		$T = 0.21*A + 0.16*B + 0.37*C + 0.20*D$				

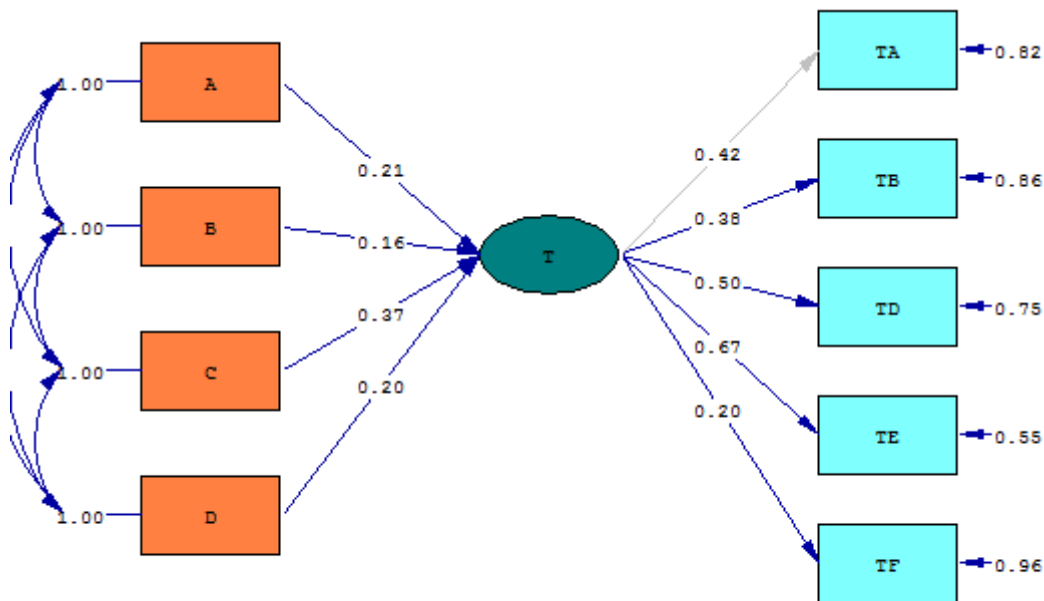
Table 9: H3 Test

**H4:** It was hypothesized that there is a meaningful relationship between employees' relationship management and knowledge sharing (Hypothesis 4). The result of the study as shown by the T-value path coefficient of 2.32 in figure 3, suggests that there is a statistically significant relationship between employees' Relationship management, sub-dimension of emotional intelligence and knowledge sharing. Details are summarized in Table 10.

Result	Standard Coefficient	Meaningful T- value	T- value Coefficient	Dependent Variable	Independent Variable	Hypotheses
Confirmed	0.20	1.96	2.32	KS	Relationship Management	(H4)
$R^2 = 0.56$		$T = 0.21*A + 0.16*B + 0.37*C + 0.20*D$				

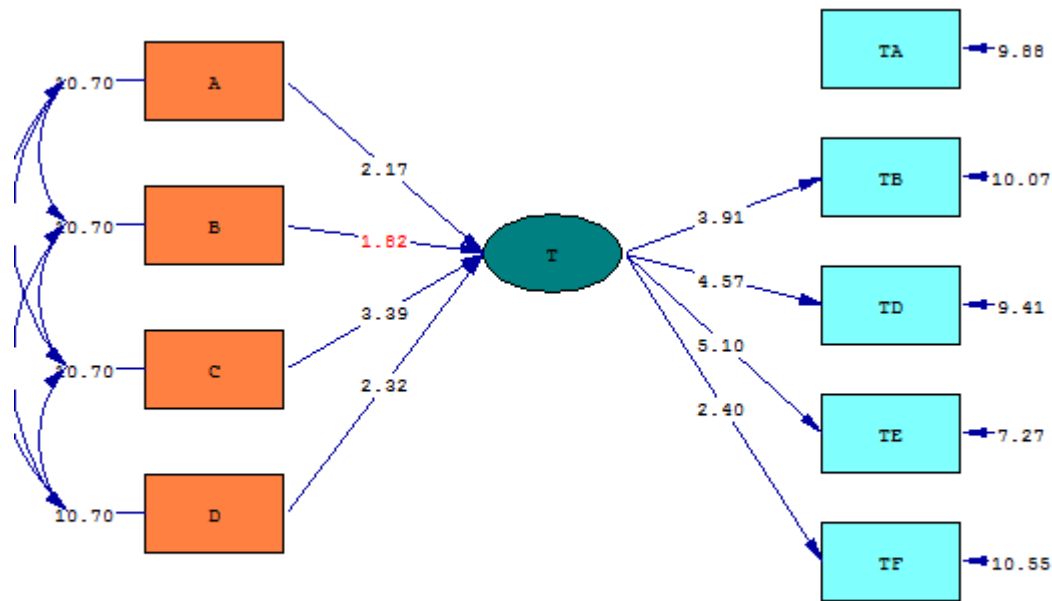
Table 10: H4 Test

The output of test and the pattern of relationships in structural equation model for subsidiary hypothesis are shown in figure 4 and figure 5, as follows:



Chi-Square=37.00, df=21, P-value=0.01681, RMSEA=0.058

Figure 4: Standard Coefficient Diagram for Subsidiary Hypothesis



Chi-Square=37.00, df=21, P-value=0.01681, RMSEA=0.058

Figure 5: T-value Diagram for Subsidiary Hypothesis

## 7. Discussion and Conclusion

This section summarizes the new findings of this study and discusses the implications of them.

### 7.1. Summary of new findings

This research which analyzes the relationship between emotional intelligence and knowledge sharing was conducted in lubricant company in Iran to their employees by using survey method. To analyze the outcomes of this survey, a structural equation modeling (SEM) was made between emotional intelligence and knowledge sharing. According to the outcomes of this SEM analyze, it was defined that there is a meaningful positive relationship between emotional intelligence and knowledge sharing. Based on analyzing subsidiary hypothesis, it was reached to the conclusion that there are meaningful positive relationships between 3 of 4 dimensions of emotional intelligence; Self Awareness, Social Awareness and the Relationship Management and knowledge sharing.

Emotional intelligence is also considered within the issue of intelligence. Emotions are important not only for people but also for organizations. Social existence of an organization cannot be without emotions. Therefore, emotional intelligence is considered as a dimension of organizational intelligence. It seems that emotional intelligence can be an evolution way of attention to human in the organizations, and thus a new and appropriate tool in the hands of commercial managers and market theorists in order to guide the employees in the organizations and make them satisfied. Emotional intelligence tries to explain and interpret the position of emotions and feelings in human's abilities. The employees with high level of emotional intelligence are more effective who achieve the goals by the maximum efficiency, satisfactory and commitment. According to previous researches, one of the main subjects in knowledge management is emotional intelligence which includes the employees' beliefs about the knowledge concepts. Based on the conclusion of the research, and since the most valuable and important capital of the organization is its human capital, and the most this valuable capital is paid attention to, the more success the organization obtains, it can be seen that the attempts of employees with high emotional intelligence leads to development of knowledge and information sharing in the organization.

This study has empirically provided new findings of the respective relationship between employees' emotional intelligence and knowledge sharing intentions, which prior research has ignored or limited so far. The new findings will be very useful to deepening and widening our understanding of the respective role of individual emotions in employees' knowledge sharing intentions.

## 8. Limitations

Despite its new findings, this study has the following limitations, which may be addressed and overcome by future research. Although this study concentrates on emotional intelligence as major antecedents to employees' knowledge sharing intentions, many other factors may also be involved. Since this study adopted a cross-

sectional survey method of data collection, it may not have fully captured the dynamism of the formation of employees' knowledge sharing intentions. Because our results represent only a snapshot thereof, further researchers may consider adopting a longitudinal data collection method which will enable them to investigate the effects of the antecedents of employees' knowledge sharing intentions from a dynamic perspective.

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