

THE INFLUENCE OF TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP ON KNOWLEDGE SHARING: AN EMPIRICAL STUDY ON SMALL AND MEDIUM BUSINESSES IN INDONESIA

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ABSTRACT

Knowledge sharing plays an important role in knowledge management. Knowledge sharing intends to optimise knowledge sources. Optimum knowledge sources enable particular businesses to become more innovative. However, knowledge sharing is not an easy and simple process, and therefore, it requires another factor. The existence of leadership is expected to be a factor that solves this problem. The goal of this research is to analyse and identify the function of the transformational and transactional leadership that an owner or manager of a Medium-Scale Business Unit can use to encourage knowledge sharing. A survey was conducted on small- and medium-scale business production sectors in the North Sulawesi Province of East Indonesia. The data used in this research included 176 samples. The collected data were then analysed by using a variant-based structural equation model or Partially Least Square (PLS-SEM). The data analysis results provide empirical evidence that a transformational leadership style, particularly in the individual consideration and individual inspirational dimensions, positively impacts knowledge sharing activities. However, other dimensions, namely, intellectual stimulation and inspirational motivation, do not significantly encourage activities related to knowledge sharing. Moreover, transactional leadership on the contingent reward dimension does not significantly impact knowledge sharing.

Keywords: knowledge sharing, transformational leadership, transactional leadership

INTRODUCTION

Knowledge resources have become essential to increasing the competitiveness of both small and large companies. Darroch (2005) states that a company that is capable of managing knowledge effectively will become a more innovative company. Effective knowledge management indicates that a company has taken measures to improve its knowledge resources. According to Argote et al. (1999, as cited in Srivastava, Bartol, & Locke, 2006), knowledge sharing is an

important component of knowledge management because it has a close relation to optimise knowledge resources.

Although knowledge sharing is essential to a company, one significant problem is that knowledge sharing does not emerge automatically. Szulanski (1996; 2000) emphasises that knowledge sharing is an intricately complicated process because of the different perceptions of knowledge givers and knowledge receivers. To overcome this difficulty, one approach proposes a leader to ensure effective knowledge sharing (Srivastava et al., 2006).

Previous empirical research has supported the idea that a leader functions as a main factor in accelerating knowledge sharing in one organisation (Xue, Bradley, & Liang, 2010; Singh, 2008; Srivastava et al., 2006). Studies conducted by Xue et al. (2010) and Srivastava et al. (2006) reveal that an empowering leader positively impacts knowledge sharing. Singh (2008) explains that supporting, consultative, and delegative leadership significantly influences knowledge management practices including knowledge sharing. Nevertheless, these studies have only focused on similar types of leadership. Bass (1985, as cited in Yukl, 2006) argues that transformational and transactional leadership suggests different styles but that these styles are perfectly blended in a leader.

Bass (1985, as cited in Yukl, 2006) explains that it is possible for one leader in an organisation to have different leadership styles (i.e., transformational and transactional), which become his/her innate characteristics. By using the model developed by Bass (1985), a researcher can explore the correlation between leadership style and knowledge sharing in a more specific and comprehensive manner. Many previous studies of transformational and transactional leadership emphasise transformational and transactional leadership style as a single variable. To the contrary, this research examines the inter-dimensional relationship between transformational and transactional leadership styles. Accordingly, this research provides a detailed description and specific information concerning the impact of transformational and transactional leadership styles on knowledge sharing.

Providing a credible answer to the research problems requires in-depth research of an organisation where the roles of leaders in business and organisational knowledge development become crucial. Therefore, the study was conducted on a Small- to Medium-Scale Business Unit because its management control is administered by one person who serves as both the owner and manager (Stanworth & Curran, 1976, as cited in Indarti, 2010). Therefore, these roles enable the owner or manager to be the most important actor in the development of employees and the company. This assumption is expected to better examine the leadership role compared with the management of large companies. Large

companies usually have more sophisticated organisational structures because they separate the roles of leaders in several departments. As a result, the roles of leaders in a large organisation overall are less dominant.

This article is divided into four sections. The first section discusses theories of knowledge sharing and transformational and transactional leadership, examines relevant empirical findings and develops hypotheses. The second section contains detailed information regarding the research method applied in this study. The final section comprises a discussion, conclusion, and limitations.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Knowledge Sharing

According to Kamasak and Bulutlar (2010), knowledge sharing is inseparable from knowledge creation. Nonaka, Krogh and Voelpel (2006) defines knowledge creation as an incessant learning process through acquiring new context, perceptions and knowledge. Thus, knowledge sharing refers to a social activity (Dalkir, 2005) that requires supportive behaviour and motivation to accelerate it (Xue et al., 2010; Liao, Fei, & Chen, 2007). Without knowledge sharing, knowledge will be underutilised (Srivastava et al., 2006).

Knowledge sharing in an organisation can be defined tacitly or explicitly as a knowledge exchange process to create new knowledge (Hoof & Ridder, 2004). Knowledge sharing can occur through individual activities such as contributing ideas, suggestions, advice, information, experiences, and skills to other team members in an organisation (Hoof & Ridder, 2004; Bartol & Srivastava, 2002; Davenport & Prusak, 1998). Hoof and Ridder (2004) argue that knowledge sharing activities involve two dimensions: knowledge donation and knowledge collection. Knowledge donation refers to a process of providing knowledge by establishing communication among individuals. Knowledge collection, in contrast, is defined as a process of acquiring knowledge from other individuals by consultation, persuasion, and an invitation to other individuals to share the knowledge that they have.

Knowledge sharing is key to successfully translating individual learning to organisational capability (Frey & Oberholzer-Gee, 1997). However, Lam and Lambermont-Ford (2010) warn that knowledge sharing is difficult because it depends on the individual's willingness to share. Szulanski (1996; 2000) identifies this obstacle as *knowledge stickiness* because it becomes a social process that has complex difficulties and causal ambiguity. Many previous studies, both quantitative and qualitative, have provided evidence that knowledge

sharing has many benefits, such as increasing the innovation ability and accelerating the work performance of a team (Tsai, 2001; Dyer & Nobeoka, 2000; Darroch, 2005; Srivastava et al., 2006; Liao et al., 2007; Lin, 2007).

Transformational Leadership and Knowledge Sharing

Bass (1985, as cited in Yukl, 2006) further explains that transformational leaders strive to motivate their subordinates to achieve a work performance that exceeds the organisational expectation. Therefore, Yukl (2006) suggests a transformational leader uses the following methods to motivate his or her subordinates:

1. Encourage employees to have a deeper awareness of the importance of output;
2. Encourage employees to put group interests first; and
3. Uphold the higher needs of employees, such as pride and self-actualisation.

Bass (1985; 1990, as cited in Yukl, 2006) mentions four dimensions in transformational leadership: motivation sources, inspiration sources, individual consideration source, and intellectual stimulation.

Yukl (2006) and Northouse (1997) explain that an inspiration source, better known as a charismatic leader, refers to the type of leader who serves as a role model to all subordinates. This leader usually possesses high moral standards and is highly respected and trusted by subordinates. A transformational leader is a source of inspiration because this leader can be communicative in delivering a future vision. Intellectual stimulus is a part of transformational leadership and effectively encourages employees to be more creative and innovative. Leaders who have these characteristics will undoubtedly be able to motivate employees to develop new methods in solving problems in an organisation (Northouse, 1997). A consideration source is a leadership type that creates an encouraging work environment. This leader is willing to listen to employees' complaints and needs. This type of leader can act as a trainer, advisor, and consultant (Yukl, 2006; Northouse, 1997).

Trust is an important factor that supports the knowledge sharing process (Davenport & Prusak, 1998). When an individual has obtained trust, he or she is willing to share more easily, including share knowledge. An inspirational leader gains absolute trust from subordinates; thus, inspiration positively impacts knowledge sharing. Similarly, a leader serving as a motivational source will be communicative and excited in delivering his or her insights. When subordinates have been greatly affected by this leader's perceptions, they will share knowledge much more easily. As an intellectual stimulus, an inspirational leader fully

comprehends the importance of knowledge. As a result, this leader encourages subordinates to share knowledge. A good working environment also encourages knowledge sharing (Politis, 2004). A leader who becomes a consideration source can create a good working environment.

Deluga (1990) states that the transformational leadership style establishes an emotional bond in the leader and subordinate relationship, which is represented through trust and confidence in the influence and capability of the leader. A manager who has a transformational leadership style creates an environment where the subordinates feel a strong emotional bond with the leader.

A strong emotional bond between the leader and subordinates enables the owner or manager of a Small-Medium Business Unit to persuade the employees to develop knowledge for the benefit of the company. Through this emotional connection, employees are willing to share knowledge even without being asked.

From this statement, it can be concluded that the owners or managers of a Small-Medium Business Unit who possess transformational leadership have the ability to change the behaviour of their subordinates. These owners and managers establish knowledge-sharing activities with subordinates and encourage them to be receptive to knowledge. This view is reinforced by research conducted by Bryant (2003) and Crawford (2005), who demonstrate that the transformational leadership style positively affects knowledge management, including knowledge sharing activities.

Accordingly, the first hypothesis can be stated as follows:

H1: Overall, dimensions of transformational leadership positively affect knowledge sharing activities.

Transactional Leadership and Knowledge Sharing

According to Bass (1985, as cited in Yukl, 2006), transactional leadership can be defined as a transactional process between leaders and subordinates. A transactional manager encourages subordinates to work through the observance of an explicit and implicit agreement established between leaders and subordinates (Deluga, 1990). In transactional leadership, for example, the employees have been given a distinctive job target. If they achieve the target, these employees will receive a reward or incentive from the leaders. If the employees do not achieve the target, the manager will take evaluative action, such as imposing sanctions.

Bass (1985; 1990, as cited in Yukl, 2006) further explains that the transactional leadership style can be divided into two dimensions: contingent reward and exception management. Contingent reward refers to an exchange process between leaders and subordinates that involves a reward (Northouse, 1997). Northouse (1997) further explains that contingent reward enables the leader to establish an agreement with employees regarding what they must do and what they will gain if the agreed work is successfully completed. However, exception management is a form of correction or evaluation by leaders when an employee makes mistakes (Northouse, 1997; Bass, Avolio, Jung, & Berson, 2003).

Consistent with Northouse (1997), Yukl (2006) describes managers who have a transactional leadership style as having the following characteristics.

1. Leaders know what the employees want and explain that the employees will obtain it if their achievements fulfil the expectations of the company.
2. Leaders exchange employees' efforts with rewards.
3. Leaders are responsive to the needs of their employees as long as it equals the value of the work that the employees have performed.

According to Deluga (1990), managers with a transactional leadership style consider the leader and subordinate relationship to be work relationships or an employment agreement in either implicit or explicit ways. Deluga (1990) also explains that employees receive rewards when obeying this employment agreement. Alternatively, employees who violate this agreement could receive sanctions.

Unlike the transformational leadership style, the transactional leadership style makes the leader-subordinate relationship a joint-venture relationship or agreement, not an emotional bond. With the transactional leadership style, the leader assumes that the employees' knowledge belongs to the company. Petigrew and Mechanic (1972; 1962, as cited in Deluga, 1990) indicate that the information and expertise of subordinates may be subject to negotiations to reach an agreement.

Bock and Kim (2002) argue that knowledge sharing activity is closely related to economic exchange theory. This argument means that knowledge sharing depends on the benefits and costs incurred by the employee. In addition to this opinion, Bartol and Srivastava (2002) explain that management should provide a good system to provide extrinsic rewards, such as salary increases, bonuses and incentives, to encourage knowledge sharing activities. Bartol and Srivastava (2002) believe that these activities can be useful in providing stimuli for employees to improve the company's development of knowledge through

knowledge sharing activities. Higher employee participation in knowledge sharing means that a higher reward can be received.

A transactional leadership style can expand its influence through rewards such as salary increases or promotions or through sanctions if the employee makes a mistake (Yukl, 2006). Providing rewards and sanctions is expected to encourage employees to collect and donate new knowledge gained. Bock and Kim (2002) explain that the practices of rewards and sanctions are common for companies to encourage knowledge sharing activities. This argument can be analogised as a relationship between teacher and pupil. When a teacher assigns homework, students will finish it to receive a good score and avoid any punishment that the teacher may give if the students do not complete the homework.

Based on the opinions and examples above, the employees expect that the expectation from management can be fulfilled as long as they believe that they can earn additional income, obtain a promotion and the opportunity to develop themselves and avoid sanctions (Yukl, 2006; Bass et al., 2003). This expectation also includes knowledge. This statement can be formulated in the following hypotheses:

- H2: The entire dimension of transactional leadership positively affects knowledge sharing activities.

CONCEPTUAL MODEL

The explanation of these theories with the development of the hypothesis can be summarised in Figure 1.

RESEARCH METHOD

A survey was conducted in Small-Medium Business Units in Indonesia. To represent Indonesia, we choose the North Sulawesi Province. The research was conducted in the North Sulawesi Province, Indonesia because of its fascinating development. North Sulawesi is considered to be one of the regions experiencing the highest economic growth. According to the data obtained from the North Sulawesi Statistical Bureau, the growth of North Sulawesi's economy is even higher than Indonesia's economic growth, which is only 6.3%.

This research faces obstacles because the data gained from SME agencies of the North Sulawesi Province do not reflect reality. Therefore, the choice of using a

non-random purposive sampling method is wise. The samples taken must meet the following two criteria.

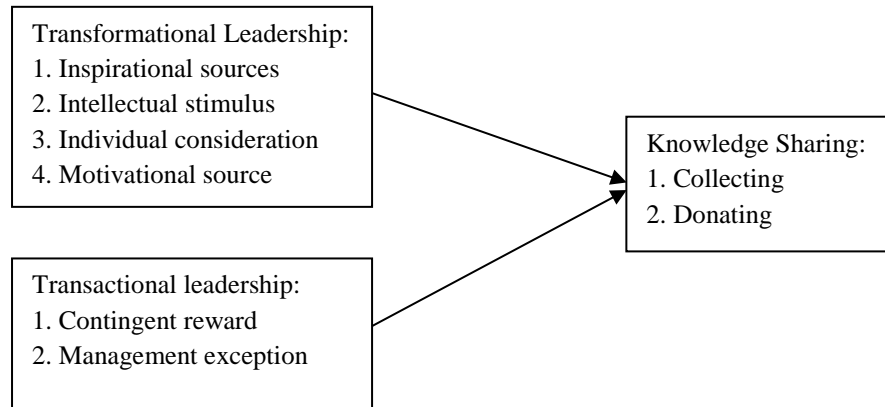


Figure 1. The conceptual model

1. Small businesses must have been established for a minimum of three years because this length of time is assumed to give sufficient time for leaders and/or managers to have better knowledge concerning their organisation.
2. SMEs must have fewer than 100 employees (Indonesia statistics bureau or BPS criteria).

Measurement

The instruments used in this research were also used in previous research. Every construct was measured by using several questions. The questionnaire instruments were measured using 5-point Likert scales (1 = seldom/rarely to 5 = very often/almost always).

Transformational and transactional leadership styles were measured using the self-report research instrument MLQ-1995. According to Bass et al. (2003), MLQ is perfectly applicable for leaders from the employees' perspective and for self-analysis. Transformational leadership style inspirational sources, intellectual stimulus, individual consideration and motivational sources were tested using 4-item questions for each dimension. A transactional leadership style of contingent reward and management exception (active and passive) were tested using 4-item questions for each dimension.

Knowledge sharing activities were measured using 10 items. This instrument was adapted from Hoof and Ridder (2004), who determined that it was suitable for either individual or organisational analysis. This research measurement focuses on how many times the leader practices transformational and transactional leadership styles in his/her organisation and how active knowledge sharing activities collect knowledge from his/her employees. This research measurement also focuses on how active knowledge sharing activities make employees willing to donate their knowledge to the organisation as it is perceived by the owner of a Small-Medium Business Unit. We can conclude the measurement focus is to understand how leaders perceive themselves according to their own perception regarding knowledge sharing activities in a company.

This self-report measurement may result in social desirability bias; thus, this research involves several approaches to control such bias. The first approach provides a solid rationale for the use of self-analysis (see Conway & Lance, 2010). In the Small-Medium Business, the owner or managers are the main factor in charge of and responsible for the firm's growth and knowledge development, and all information goes to these people (Stanworth & Curran, 1976, as cited in Indarti, 2010; Tidd & Bessant, 2005). Therefore, by studying the owner/managers' perceptions, information is obtained on the entire organisation. The second approach is to conduct an informal interview. The questionnaire was directly sent to selected respondents and asked them to provide direct answers. Though this method requires good communication skills, it minimises bias because the surveyor, by using his/her personal approach, can help respondents provide more honest answers and avoid merely beneficial answers. The last approach protects respondents' anonymity and ensures that there is no correct answer. According to Podsakoff, McKenzie, Lee, and Podsakoff (2003), these procedures should reduce people's evaluation apprehension and make respondents less likely to edit their response to be more socially desirable and consistent with what the researcher wants.

This research instrument was translated from its original language, and the researcher consulted several scholars from two reputable universities in the North Sulawesi Province. In addition, this research involved competent experts on Small-Medium Business Units in the North Sulawesi Province to justify the research instrument. After consulting with scholars and experts, some of business owners were asked to conduct pretest of the research instrument. Based on the results of the discussions with experts and small business practitioners, one method to adjust the research instrument was changing the word 'I' to 'we'. For example, the original statement from MLQ-1995 stated "I look for different ways to solve problems". We changed this statement to "we look for different ways...". This change aims to make respondents feel as though they were the organisation

instead of involving personal feelings in answering questions on the questionnaire.

Data Collection

Two hundred fifty (250) questionnaires were directly distributed to respondents. The number of questionnaires is adequate because PLS-SEM has good statistical power, although the number size of the samples is limited (see Hair, Tatham, & Black, 2010; Hair, Sarstedt, Ringle, & Mena, 2011). One hundred seventy-six (176) completed questionnaires were returned that qualified for analysis; the remaining 74 questionnaires were not used in the analysis because they omitted more than 15% of the missing data. Based on Heir et al. (2010) missing data more than 10% should drop from the data analysis.

Respondent and Business Profiles

Based on the data presented in Table 1, most of the owners or managers (69.31%) of a Small-Medium Business Unit who participated in this research are male. Most of these owners or managers are 36–40 years old (54%), and the rest are over 40 years old (22.7%). The educational background of most owners of Small-Medium Business Units (40.90%) is High School. Table 1 also reveals that the respondents have good experience because they have run the business for approximately 15 years. Most Small-Medium Business Units in the production sector are located in rural areas (60.79%), and the employees come from the village where these Small-Medium Business Units conduct their activities.

The average number of full-time employees is 11 people, and the average number of part-time employees is 13 people. From the number of employees, it can be concluded that most businesses are classified as small-scale businesses (BPS Qualification). Respondents from Small-Medium Business Units in the production sector possess assets of approximately 5 to 50 million rupiah (50.56%). Further, the average amount of monthly onset of Small-Medium Business Units in the production sector is below 50 million rupiah (61.71%). The amount of onset and income of respondents indicate that Small-Medium Business Units in the production sector in the North Sulawesi Province are classified as micro or small-scale businesses (see Law no. 20/2008).

Table 1
Respondent and business profiles

Dimension	Category	The number of respondents	Percentage
Sex	a. Male	122	69.31
	b. Female	54	29.54
Age range	a. < 25 years	13	7.4
	b. 26–30 years	12	6.8
	c. 31–35 years	16	9,1
	d. 36–40 years	95	54
	e. > 40 years	40	22.7
Education background	a. Elementary School	32	18.18
	b. Junior High School	31	17.61
	c. Senior High School	72	40.90
	d. Bachelor	8	4.54
	e. S1 (Undergraduate)	32	18.18
	f. Others (S2)	1	0.56
Business unit	a. Craft Industries	52	29.54
	b. Chemical & Construction	16	9.09
	c. Metal & Electronics	34	18.89
	d. Food Processing	44	19.31
	e. Clothing & Leather	30	17.04
Location	a. Village	107	60.79
	b. City	57	32.86
	c. Suburban	12	6.81
Average employees (continuously scaled)	a. Full Time	11	
	b. Part Time	13	
The amount of asset (last two years)	a. Less than 5 million	59	33.52
	b. 5 million to 50 million	89	50.56
	c. > 50 to 100 million	13	7.38
	d. > 100 to 150 million	5	2.84
	e. > 150 million	10	5.68
Income per month	a. < 50 million	108	61.71
	b. > 50 to 100 million	37	21.02
	c. > 100 to 150 million	21	11.93
	d. > 150 million	10	5.68

Source: This processed data has been obtained by author in 2013.

DATA ANALYSIS AND RESULTS

The data analysis method applied in this research is the variant-based *Structural Equation Model* (SEM) or *Partially Least Square* (PLS-SEM) with the SmartPLS 2.0 program. PLS-SEM is chosen as a suitable data analysis method because it is robust toward the classical assumption problem and suitable for the measurement problem (Hair et al., 2011). Validation using PLS covers the construct validity test (convergent validity and discriminant validity) and composite reliability. Then, hypothesis justification can be conducted.

Validity and Reliability

The validity tests intend to determine the extent to which the measurement instruments reflect theoretical constructs, as indicated by empirical evidence (Hair et al., 2010; Cooper & Schindler, 2008). The result of validation finally shows that among the 28 questions, 12 questions must be excluded from the measurement; thus, only 16 questions can be used in this study. Some of the questions should be excluded because the factor loading value cannot reach the minimum limit to be considered valid (0.5) and/or because they have a cross loading problem (Hair et al., 2010). From this research, it is clearly observed that the only valid dimension of transactional leadership is contingent reward. However, the factor loading values of the dimensions of exception management are below the minimum limit of 0.5, or these dimensions have a cross loading problem. As a result, such variables should be eliminated from hypothesis testing.

A convergent validity test is conducted to determine the correlation among research constructs. The indicators used in the convergent validity are the factor loading values that accumulated in the construct and AVE values. AVE values are considered good if they reach minimum of 0.5 score (Hair et al., 2010; 2011). Hair et al. (2011) reveal that the most appropriate method in the reliability test in PLS-SEM to measure the internal consistency is composite reliability because it reflects the true value of research constructs reliability. The ideal value for composite reliability is ≥ 0.7 (Hair et al., 2011). The overall results of convergent validity and reliability testing can be observed in Table 2.

Table 2
Convergent validity and composite reliability

Variable	Item	Convergent Validity		Composite Reliability
		Loading factor	AVE	
Inspiration sources (INDV)	2	0.742–0,851	0.637	0.777
Intellectual stimulus (ISTM)	2	0.729–0,842	0.620	0.765
Motivation source (MOTV)	3	0.762–0,859	0.639	0.841
Individual consideration (ICON)	2	0.824–0,914	0.757	0.861
Contingent reward (CR)	2	0.778–0,884	0.692	0.817
Knowledge sharing (KS)	5	0.717–0,802	0.570	0.869

Table 2 shows that all of the research variables have valid and ideal factor loading values, i.e., they are greater than 0.5 (Hair et al., 2010). The entire value of the AVE of each construct is greater than the requirement described by Hair et al. (2010; 2011), i.e., greater than 0.5. The reliability tests also showed good results. Table 2 shows that all of the variables have composite reliability values greater than 0.7.

Chin (1998) in Hair et al. (2011) notes that discriminant validity should include each indicator that has the highest load and that each indicator must be measured. Each indicator must have no cross loading problem. In this research, the 176 remaining questionnaires have no cross loading problem. The constructs among variables of the study are different; therefore, these constructs are considered acceptable for discriminant validity. Thus, the result of the construct validity test reveals that the instruments in the study have met good construct validity and that it is feasible to conduct a hypothesis test.

RESEARCH RESULTS

Hypothesis testing is conducted to analyse the cause-effect relationships (causality) among the variables in the model based on the value of the critical ratio (CR). In terms of PLS-SEM, CR is known as the *t*-stat value. If *t*-stat values higher than 1.96 (sig. 5% two-tailed) and has positive relationship (see hypothesis) means that the hypothesis is supported. The results of hypothesis testing can be observed in Figure 2.

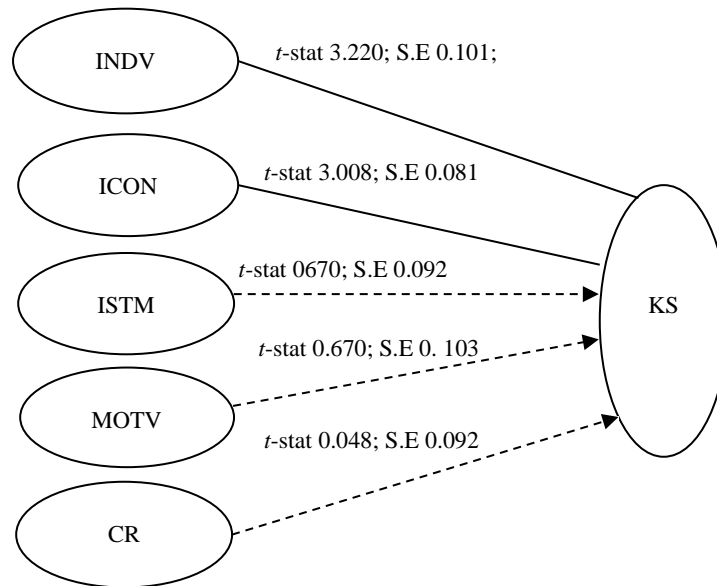


Figure 2. Hypothesis result

Figure 1 shows that the first hypothesis, which reveals that the all dimensions of transformational leadership had positive effects on knowledge sharing, was only partially supported. Only individual inspiration and individual considerations were supported because their t-stats are higher than 1.96, whereas the intellectual stimulus and source of motivation has a t-stat value below 1.96. Hypothesis two is also not supported because the CR value is less than 1.96 for the contingent rewards variable.

DISCUSSION AND CONCLUSION

The results of this research both confirm and revise the previous research. Several credible arguments confirmed by the results of or research are as follows. According to Yukl (2006), transformational leadership is more effective because it is sufficiently powerful to establish long-term relationships between employees and employers. However, a transactional leadership style is only capable of building short-term relationships between employees and employers. Gorelick, Milton and Apri (2004) state that a charismatic, powerful, symbolic, exciting, and strong-willed leader who has a strong future vision will become the most suitable leader for developing and managing organisational knowledge as a primary resource. Similarly, Bryant (2003) explains that an effective transformational leadership style affects activities in sharing knowledge. Deluga (1990) and Xue et al. (2010) also strongly emphasise that a transformational leadership style can

establish emotional bonds between superiors and subordinates, which also encourages the behaviour and attitudes of employees to share knowledge. Different from previous research, this research explains the detailed dimensions of transformational leadership that directly influence knowledge sharing.

This research emphasises the idea that in Indonesia, particularly in the North Sulawesi Province, an emotional bond to encourage knowledge sharing is possible if the leader is capable of becoming an individual or charismatic inspiration so that subordinates respect their leader. Moreover, a leader must consider individuals, create a supportive working atmosphere and act as a counsellor (Yukl, 2006) to establish an emotional bond to preserve and create a knowledge sharing environment.

This condition may occur because most respondents are business owners who have been involved in the business sector for years and run a business that has been passed down for generations. Family ties in Indonesia, particularly in North Sulawesi, are strong. Therefore, giving respect and upholding the business owner, whom others consider a "senior", emphasise that individual inspiration plays a significant role in influencing knowledge sharing. The individual consideration factor refers to a leader who is capable of creating an encouraging and good working atmosphere (Yukl, 2006). This dimension significantly influences knowledge sharing activities because of the existence of family ties. Most subordinates working in the business are the owner's relatives or belong to the same race (most respondent is Minahasan). As a result, the working environment becomes more convenient because employees share the same culture. According to Davenport dan Prusak (1998), when people must transfer knowledge, the method must always suit the culture. In this case, the employees need relatively no adjustment to the culture because they have the same cultural background.

Conversely, the motivational source dimension did not significantly impact knowledge sharing. In this case, this result was possible because the owners and managers of small-medium businesses were not sufficiently communicative in delivering the vision of their organisation. Therefore, it may be that the intent and purpose of the vision did not reach their employees. It is even possible that leaders in the Small-Medium businesses in Indonesia (e.g., in the province of North Sulawesi) are unclear concerning their own vision. For example, it is even possible that the old famous Indonesian idea that "the important think, is still be able to eat tomorrow" (the meaning of the idea is running business were only for fulfill physical need) is still in practice. Instead, business owners and managers think one step ahead for their business progress.

A similar result occurred to the intellectual stimulus variable. One possible explanation is that the owners of Small-medium business in Indonesia (e.g.,

North Sulawesi) are less innovative or have not yet obtained sufficient knowledge to transfer to the organisation. Thus, learning through knowledge sharing could not properly occur. In the previous section, it is noted that owners or managers of small-medium businesses are central to developing their organisational knowledge. Therefore, if an owner or manager does not have sufficient knowledge, the learning process will be halted. The results of this research can be well-explained through the level of education (Table 1), which shows that the level of education is still relatively low. According to Vinding (2000, in Indarti, 2010), the level of education could be the influencing factor in absorbing knowledge. Therefore, if the leader does not have an adequate level of education or sufficient knowledge and is less innovative, how can someone who is considered a leader have the ability of intellectual stimulus?

The transactional leadership dimension, which is contingent reward, produces the same result as do the two transformational leadership dimensions that fail to make a positive contribution. Kohn (1993) revealed that there is a strong relationship between imposing sanctions and contingent reward. He explained that anticipating a reward from Management is one form of sanction. Further, Kohn explains that rewarding could make it difficult for an employee to differentiate whether he/she receives punishment if he/she fails to achieve the target. Kohn also clarifies that contingent reward can undermine good relationships between leaders and followers and create disharmony if not carefully accomplished. Lin (2007) confirmed there is a possibility that a reward system cannot positively impact knowledge sharing.

Most of the respondents live in villages (Table 1). That fact could explain why contingent reward does not significantly affect knowledge sharing. People who live in villages usually live together in harmony and are closely related to one another. People in North Sulawesi have a famous culture known as *Mapalus*, which means mutual aid. Most *Mapalus* are more prevalent in rural communities rather than in the city. Based solely on this reason, emotional ties and kinship occur relatively more frequently among villagers than in urban society. Therefore, the employee relationship between the leader and his/her followers (superior and subordinate) will be based on an emotional bond.

Research Implications

The findings indicate that individual consideration and inspiration are important dimensions of transformational leadership. It can be concluded that these two leadership qualities must be enhanced. The findings also show that there exists a lack of quality leadership on motivational source, intellectual stimulus and contingent reward. The findings can provide information that small business units in Indonesia, specifically in North Sulawesi, still need help, particularly

concerning the availability of information and knowledge access. Therefore, small business owners must retain the individual leadership qualities and inspiration that they already possess while continuing to learn from sources of information and knowledge. As their knowledge increases, the knowledge that can be transferred or shared to his/her employees also increases. Therefore, the leadership qualities that are capable of acting as an intellectual stimulus will increase. Increasing knowledge could also encourage business owners to have the motivation to move forward and have a future business outlook that is broader than simply a narrow view. Motivation is expected to be passed on to their offspring.

Although the results show that contingent rewards do not significantly affect knowledge sharing, the rewards could not be easily eliminated. The practice in the world of small businesses may need to be improved. Rewards in businesses are still often practiced to support employee motivation. However, as Kohn described, and according to the results obtained by Politis (2004) and the opinions of Northouse (1997), transformational and transactional leadership is similar to a pendulum where the contingent reward dimension is closest to the transformational leadership style. Therefore, the proper and wise use of rewards lead to avoiding tension among employees in the future and is a strategy that must be executed. The subsequent expectation is the creation of a reward system that is harmonised to support the transformational leader and results in the encouragement of the knowledge sharing process in small businesses.

Knowledge sharing is the inevitable element that every business owner must perform. Previous research reveals that knowledge sharing in an organisation enables it to be more innovative (Liao et al., 2006; Lin, 2007; Indarti, 2010; Wuryaningrat, 2013). The research also expresses that knowledge sharing is not an easy process that can be conducted in one organisation (Szulanski, 1996; 2000). Further, this research also explains that in the small business environment in developing countries, such as Indonesia, the role of leadership plays an important role to encourage knowledge sharing.

Research Limitations and Future Research

Similar to any other empirical study, this research has its limitations. The first limitation lies in the choice of a cross-sectional survey. A cross-sectional survey is considered to have drawbacks because leadership and knowledge sharing refers to a continuous learning process. Therefore, the selection of a cross-sectional survey may be unable to explain the phenomena as a whole because the data are obtained only at a certain time. Thus, a cross-sectional survey needs longitudinal studies to establish the causal relationship among constructs of interest in this research.

The second limitation of this study is that the construct is based solely on the subjective perceptions of Small-medium business owners and managers. Although this approach was the most suitable in the research context, it may lead to bias. Although several procedures were conducted to reduce this bias, the procedures cannot eliminate 100% of the bias that may occur.

Another limitation of this study lies in the fact that Indonesia is a country that has a vast territory rich with cultural, ethnic and religious diversity and a large number of people. Therefore, the research was conducted only in the province of North Sulawesi, and the number of samples is only 176. As a result, the results may not be able to describe the real conditions of small-medium businesses in Indonesia. In future studies, the research should examine other areas so the results of the research can be generalised.

The results of this study also provide interesting aspects for subsequent research, particularly to further confirm what occurs, such as why the intellectual stimulus dimension and motivational source have no significant effect on knowledge sharing. The reasons expressed in this research are based on data and facts that were successfully recorded in this study. In the future, qualitative research with ethnographic approaches should be conducted.

APPENDIX

KNOWLEDGE SHARING
When we learn new knowledge, we inform our other employee.
We learn the skills of our other colleagues.*
We share information with our employee.
When we learn new knowledge, we think that it is important for our employees to learn that knowledge.
We share information with employees from any departments.
We also learn skills that employees from other departments have.
Our employees in this business are willing to share their knowledge everytime we ask.
Our employees in this business are willing to teach us their skill if we ask.
Our employees from other departments are willing to share everything they know if we ask.
Our employees from other departments are willing to teach us their skill if we ask.
TRANSFORMATIONAL LEADERSHIP
We seek for different point of view in solving the problems.*
We provide our best effort to make our subordinates proud of working with us.*
We enthusiastically inform the employees about any requirement that must be achieved.
We emphasize on the importance of having high objectives in life.*
We provide much time to teach and give direction.*
We treat our subordinates as an individual instead of simply as our employees.*
We try to instill respect in every employee we have.*
We also consider various ethic and moral consequences from every decision we have taken.
We infuse influence and self-confidence in working.*
We try to communicate enthusiastically the vision and mission of our business to the employees.
We realise that an individual has different need, skill, and aspiration.
We invite our employees to perceive problems from different point of view.
We foster our employees to develop their skills.
We suggest new method in solving duties and tasks given.
We put an emphasis on having a strong tie of togetherness in running the vision and mission of this business.
We show that self-confidence will enable us to achieve the goal.
We speak of the most important values and faith to our employees.*
We are very optimistic with the future.*
We put aside our personal need for the sake of our mutual needs.*
We reconsider the accuracy of critical assumption that we have taken.*

TRANSACTIONAL LEADERSHIP
We provide assistance for our employees as the reward for their hardwork.
We do not interfere until the problems become more complicated.*
We underline the supervision on the deviation and disorganisation of the prevailing standard.*
We discuss with our employees the one who is responsible for achieving the target of work performance in this business.*
We wait until everything gets better before taking an action.*
We explain clearly what the employees will get when they achieve work performance that has been set.
We show our strictness that we should not fixed anything if nothing goes wrong.*
We show a position that we take an action if an existing problem becomes more serious.*
We concentrate our attention on the problem solving, complaint, mistakes and failure.*
We pay our attention to fix any prevailing problem by applying standard we have set.*
We show our satisfaction when our employees successfully meet our expectation.*
We examine any possible mistakes.*

Note: * Drop item

REFERENCES

- Acs, Z. J., Morck, R., Shaver, J. M., & Yeung, B. (1997). The internationalization of small and medium-sized enterprises: A policy perspective. *Small Business Economics*, 9, 7–20.
- Appleyard, M. M. (1996). How does knowledge flow? Interfirm patterns in the semiconductor industry. *Strategic Management Journal*, 17(winter), 137–154.
- Argote, L., McEvily, B., & Reagans, R. (2003). Managing knowledge in organizations: An integrative framework and review of emerging themes. *Management Science*, 49, 571–582.
- Bagozzi, R. P., & Dholakia, U. M. (2002). Intentional social action in virtual communities. *Journal of Interactive Marketing*, 16, 2–21.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–120.
- Bartol, K. M., & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organizational reward system. *Journal of Leadership and Organizations Studies*, 9, 64–76.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88, 207–218.
- Bock, G. W., & Kim, Y. (2002). Breaking the myth of reward: An exploratory study of attitude about knowledge sharing. *Information Resources Management Journal*, 15, 14–21.
- Bryant, S. E. (2003). The role of transformational and transactional leadership in creating, sharing, and exploiting knowledge. *Journal of Leadership & Organizational Studies*, 94, 32–44.
- Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology*, 25, 325–334.
- Cooper, D. R., & Schindler, P. S. (2010). *Business research methods* (10th ed.). Singapore: McGraw-Hill.
- Crawford, C. B. (2005). Effects of transformational leadership and organizational position on knowledge management. *Journal of Knowledge Management*, 9, 6–16.
- Dalkir, K. (2005). *Knowledge management in theory and practice*. Oxford, UK: Burlington, MA.
- Darroch, J. (2005). Knowledge management, innovation, and firm performance. *Journal of Knowledge Management*, 9, 101–115.
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business School Press.
- Deluga, R. J. (1990). The effect of transformational, transactional and laissez faire leadership on subordinate influencing behavior. *Basic and Applied Social Psychology*, 11, 191–203.
- Dyer, J. H. & Nobeoka, K. (2000). Creating and managing a high-performance knowledge sharing network: The Toyota case. *Strategic Management Journal*, 21, 345–368.

- Frey, B. S., & Oberholzer-Gee, F. (1997). The cost of price incentives: An empirical analysis of motivation crowding-out. *The American Economic Review*, 87(4), 746–755.
- Gorelick, C., Milton, N., & Apri, K. (2004). *Performance through learning: Knowledge management in practice*. USA: Elsevier.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, 109–122.
- Hair, J. F., Tatham, A. R. L., & Black, W. C. (2010). *Multivariate data analysis: Global perspective* (7th ed.). New Jersey: Prentice Hall.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2011). An assessment of the use of partial least squares structural equation modeling in marketing research. *Academic of Marketing Science*, 10, 1–20.
- Hoof, B. V. D., & Ridder, J. D. (2004). Knowledge sharing in context: The influence of organizational. *Journal of Knowledge Management*, 8(6), 117–130.
- Indarti, N. (2010). *The effect of knowledge stickiness and interaction on absorptive capacity: Evidence from furniture and software and medium-sized enterprises in Indonesia*. Groningen, the Netherland: University of Groningen.
- Judge, T. A., & Locke, E. A. (1993). Effect of dysfunctional thought processes on subjective well-being and job satisfaction. *Journal of Applied Psychology*, 78, 475–490.
- Kamasak, R., & Bulutlar, F. (2010). Influence of knowledge sharing on innovation. *European Business Review*, 22(3), 306–317.
- Kluge, J., Stein, W., & Licht, T. (2001). *Knowledge unplugged*. New York: Palgrave.
- Koh, W. L., Steers, R. M., & Terborg, J. R. (1995). The effect of transformational leadership on teacher attitudes and student performance in Singapore. *Journal of Organizational Behavior*, 16, 319–333.
- Kohn, A. (1993). Why incentives plans cannot work. *Harvard Business Review*, Sept-Oct, 54–63.
- Lam, A., & Lambermont-Ford, J.-P. (2010). Knowledge sharing in organizational contexts: A motivation-based perspective. *Journal of Knowledge Management*, 14, 51–66.
- Liao, S., Fei, W. C., & Chen, C. C. (2007). Knowledge sharing, absorptive capacity, and innovation capability: An empirical study of Taiwan's knowledge intensive industries. *Journal of Information Science*, 33, 340–359.
- Lin, H. (2007). Knowledge sharing and firm innovation capability: An empirical study. *Journal of Manpower*, 28, 315–332.
- Nonaka, I., Krogh, G. V., & Voelpel, S. (2006). Organizational knowledge creation theory: Evolutionary paths and future advances. *Organization Studies*, 27, 179–208.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- Northouse, P. G. (1997). *Leadership: Theory and practices*. USA: Sage Publication.
- Pelham, A. M. (2000). Marketing orientation and other potential influences on performance in small and medium-sized manufacturing firms. *Journal of Small Business Management*, 38, 48–67.

- Podsakoff P. M., McKenzie, S. B., Lee, J-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 86(5), 879–903.
- Politis, J. D. (2004). Transformational and transactional leadership predictors of the 'Stimulant' determinants to creativity in organisational work environments. *Electronic Journal of Knowledge Management*, 2, 23–34.
- Robbins, S. P. (2001). *Organizational behavior*. Upper Saddle, NJ: Prentice Hall International, Inc.
- Singh, S. K. (2008). Role of leadership in knowledge management. *Journal of Knowledge Management*, 12, 3–15.
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal*, 49, 1239–1251.
- Sveiby, K. (2001). A knowledge based theory of the firm to guide in strategy formulation. *Journal of Intellectual Capital*, 2, 344–358.
- Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17, 27–43.
- Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis. *Organizational Behavior and Human Decision Process*, 82, 9–27.
- Tidd, J., & Bessant, J. (2005). *Managing innovation: Integrated technological, market and organizational change*. Chichester: John Wiley & Sons.
- Tsai, W. (2001). Knowledge transfer in intraorganizational network: Effect of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44, 996–1004.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24, 1307–1314.
- Wuryaningrat, N. F. (2013). Knowledge sharing, absorptive capacity and innovation capabilities: An empirical study on small and medium enterprises in North Sulawesi, Indonesia. *Gadjah Mada International Journal of Business*, 15(1), 61–78.
- Xue, Y., Bradley, J. & Liang, H. (2010). Team climate, empowering leadership, and knowledge sharing. *Journal of Knowledge Management*, 15(2), 299–312.
- Yeh, C. M., Hu, H. N., & Tsai, S. H. (2010). A conceptual model of knowledge sharing and market orientation in the tourism sector. *American Journal of Applied Sciences*, 8, 343–347.
- Yukl, G. (2006). *Leadership in organizations* (6th ed.). New Jersey: Prentice Hall.