

The Applications of Theory Planned Behavior on Knowledge Sharing at Family Business

Dwi Utami Puterisari¹, Nur Wening²
Universitas Teknologi Yogyakarta^{1,2},
Puterisari26@gmail.com ¹, wening104@yahoo.co.id ²

Abstract

This research is conducted to know the behavior of sharing knowledge that be planned from the first generation of family business to the next generation, in order to make a sustainable and imperishable of family business. The research is used the planned behavior theory by Ajzen in order to developing and testing the model research of variables which influencing the intention of many knowledges and behaviors of the owner of family business. The result of the research shows that the owner of the business proved make a planning about behavior in many knowledges empirically and the major determinant of the behavior in many knowledges is intention owned. For more complete, the result shows that the control of behavior be prepared positively will be influence the intention and the behavior of many knowledges. The subjective norm did not influence the intention and the behavior in wide range of knowledge in positive way, while, the positive intention gives the effect to the behavior in variety of knowledges. The other result shows that the positive attitude influeces to the intention and the behavior in variety knowledges.

Key words : family business; theory planned behavior; knowledge sharing.

Introduction

The current era of information dominance and industrial revolution 4.0 shows a paradigm shift about capital. Capital includes several things that are tangible and intangible, including information and intellectual capital that develops. The scope of the previous capital only revolves around financial capital, infrastructure, and other material entities. But now intellectual capital is realized is very important capital to boost the company's added value. The concept of "knowledge based society" (initiated by Peter F. Drucker.1966) colors the mainstream way of thinking, not only business practitioners but academics in building business foundations that prioritize intellectual capital. The adage of "knowledge is power", and "information is power" that is often touted by business practitioners, such as Bill Gates,

reinforces the thesis that business with intellectual capital is a necessity that must be endured today. The winners of the global era competition are those who master information and knowledge and are able to empower it.

The business can be classified family business is when the family member takes the domination greatly, include the relationship of its family emotionally and visibly. Even so, not all of the employee in the business is family member. Family member worked another people but not placing them in the position as to deal the decision, while, this position and top level are taken by the family of or direct owner. According to Tracey in 2001, a business is a family business if its owners think it is and want it to be". This statement means that an organisation classified as family business if the owner think and want that their business

as family business. Even, Some definitions of family business is distinguished based on desirement, involvement, the ownership of management and the ownership the share by family member that involved. Generally, a family business operates because there is a desire or business idea by one family member. The idea would be strengthen the business with other family member.

Hall. 2008; Wijaya & Wijaya. (2007) suported by the phenomenon, showed that to build family business is not difficult to do, but, it must be more difficult to defend the business to the next generation. According to the research by Hall (2008) that only about 30% from all of family business who be able to defend in the transition era between generations, while 12% of them who be able to defend untill the third generation, furthermore, only 3% of them who be able till to the forth generation and so on. One of the causes in the failure of relay race and sustainability of business is allegedly because the leadership is not going well. The causes is the owner of family business can not prepare dan give knowledge sharing to the next generation, and the result, the management or a new leader who receive the relay race has less mature ability and can not adapted in the the competition area.

The reasoned action theory stated that the intention of an individual in the behave has two predictors as attitude toward behavior and subjective norm. The development of

reasoned action theory is theory of planned behavior with add another predictors that influence the intention of behavior involve the concept of perceived behavioral control. Therefore, there are three major predictors that influence the intention of an individual to have behavior such as (1) attitude toward the behavior; (2) subjective norm and (3) perceived behavioral control (Ajzen, 2005). The choosen of this theory is based from Ajzen's opinion (1991), he stated that TPB is proper to be used in the research of planned behavior. According to Ajzen (2006) human has make a sence behavior by considering the available information and the result of their behavior. The planned behavior theory is based from approach of believe before has something to do. The approach is conducted by negotiating the character, quality, and available information then there will be form the intention for doing something.

According to the Oxford Dictionary of Psychology, the meaning of intention is a tendency of behavior that done intentionally and with certain goal. Beside, according to Blackwell. Miniard, and Engel (2001), intention is individual self competention that refer to desire to do certain behavior. Generally, if an individual has intention to do a behavior, an individual has tendency to do that. On the contrary, if an individual has not an intention to do a behavior, an individual never have tendency to do that (Ajzen.2005). While, the attitude toward the behavior

predictor is defined as positive or negative estimation degree to a behavior. The attitude toward the behavior is determined by combination between individual belief about positive and negative consequences from behavioral beliefs with subjective value of individual in every outcome evaluation. The other predictor is subjective norm that its function is based from normative beliefs about agree and disagree an importance of individual or group to a behavior (salient referent beliefs). Ajzen (2005) stated that some behavior, social referral which is considered as important also involve social referral comes from parents, partner, close friend, colleague and another referral that related to certain behavior.

Beside, the attitude toward the behavior and subjective norm, the other individual factor is perceived behavioral control. Conceptually, perceived behavioral control is expected to moderate the influence of intention to the behavior that individual doing, So that, the strong intention and perceived behavioral will be produce a strong behavior from individual. Ajzen's opinion (2005) stated that the intention and perceived behavioral control have influence to the behavior of an individual, but, generally, both of them have not significant contact each other. Because an individual has complete control to the behavior that shown. (Fishbein & Stasson. 1990). The research that has done by Azwar (In Christanti. 2008) perceived

behavioral control is very important when individual has low self confidence.

The knowledge management in this research is a system that be arranged to organize, documentaring, classify and share the knowledge in the organization. So, the knowledge is easy to used by anyone in the same authority and competency. The knowledge management included the identification and mapping the organization intellectual assets, created new knowledge as competitive advantage, make it easier and increase the accessibility of corporate information, sharing and utilization technology to facilitate these activities. (Collison & Parcell. 2004). One of the element that determine the succesfull of knowledge management is the implementation of knowledge sharing (Park. 2009). Knowledge sharing is important element in the efective knowledge management (Bock. 2005). Knowledge sharing among employees and teams may be able for organization to exploit and take advantage the resources based in knowledge (Cabrera & Cabrera, 2005; Damodaran & Olphert 2000; Davenport & Prusak. 1998). The research showed that sharing knowledge and combination positively related to reducing production cost, perfecting the development new product, team work, the company innovation capability, company work, includes the growth of sales and income of new product and service. (Arthur &

Huntley. 2005; Collins & Smith. 2006; Cummings. 2004; Hansen.2002; Lin.2007; Mesmere-Magnus & DeChurch. 2009).

Explanation

Knowledge sharing is behavior intentionally or be conducted in planned, so that this research used Theory of Planned Behavior which the intention is assumed as the effort to get the factors that influence the behavior (Ajzen. 2005). Three factors that influencing the intention such as : (1) the attitude to the behavior, (2) the social norms that related to the behavior and (3) belief of individual control to the behavior. The research of Bock and Kim (2002); Bock, Kim, Zmud, and Lee (2005) in 27 organization in Korea found that attitude and subjective norms related with knowledge sharing behavior. Besides, there are positive relationship between attitude and intention with behavior of sharing the knowledge. Attitude of behavior (as knowledge sharing) is based on the belief of consequence on the behavior that be expected and advantage evaluation or unadvantages. The research from Lee and Cole (2003) stated that knowledge sharing is the process of recombination and evaluation of knowledge that guides the organization to create and done the knowledge sharing more effective and efficient than the competitor. (Porter. 1990). So, the knowledge sharing is related by long term work and competition. The efficient and effective of knowledge

sharing is needed to identify the effect of individual's work. When do the knowledge sharing, individual be assumed accumulate, adopt, and share the knowledge in order to have better performance in the work place.

Subjective norms (SN) is looked as the combination of hopes that feels by individual or group that relevant and the intention to obedient the hopes. In other hand, many people have their perception that subjective norm is important, then approach a necessity and an unnecessary individual to have behavior (Fishbein and Ajzen. 2006 in Ibragimova. 2012). The hypotheses of the research are :

Hypotheses 1 : There are positive influence of the subjective norms to the knowledge sharing toward the attitude to knowledge sharing.

Hypotheses 2 : There are positives influence of the subjective norms to knowledge sharing toward the intention to knowledge sharing.

Hypotheses 3 : There are positives influence between the attitude toward to knowledge sharing to the intention of knowledge sharing

The intention of behavior is difined as a decision or a motivation to do certain behavior or an intention to behavein actual (Ibragimova 2012 Fishbein and Ajzen. 2005). The definition of behavior intention in this research is a decision and motivation from

individual to do something. So, the increasing intention of individual to do something, the increasing also the possibility to do something. Therefore the hypotheses of the research :

Hypotheses 4 : There are positive influence of intention to knowledge sharing (IKS) toward knowledge sharing behavior (KSB)

The research that conducted by Chang (1998) stated that perceived behavior controll (PBC) is predictor of intention behavior that better than attitude behavior, so that, planned behavior theory is more better than reasoned actioned theory in predicating the behavior ethically and anethically. The research of Ajzen (2005) stated that control behave is related in perception concept of self efficacy be developed by Bandura (1977) such as : “The Assessment is how good the individual can execute the behavior required to face the prospective situation”. The research of Randall (1991) shows that PBC have significant influence toward the intention of variaty knowledges (Intention to knowledge sharing). Therefore, this hypotheses research such as:

Hypotheses 5 : There are positive influence between perceived behavior controll toward intention to knowledge sharing.

Hypotheses 6 : There are positive influence between perceived behavior controll toward knowledge sharing behavior.

The object of this research is the owner of family business in the middle high level company, the business is managed by the owner directly or have been already done over the next generation. The research was conducted in the provinsion of Daerah Istimewa Yogyakarta (DIY) that involve Kotamadya and 4 regency (Kotamadya Yogyakarta, Bantul Regency, Sleman Regency, Gunung Kidul Regency and Kulon Progo Regency). The reason why DIY is choosen to be research area, because this area is the center of small and medium level business (UMKM) in Indonesia that in majority family business in Indonesia be devided as UMKM. The number of population is must unknowable, so that, to determined the number of sample is conducted ramdomly in the family business in every regency or Kotamadya. Using the technique purposive sampling or sample that subjectively (Ferdinand, 2006). It is based on the assesment and certain criteria that present as well statistically, significantly, and the prosedure hypothesis assesment (ferdinand 2006). There are creteria that is declarated in this research such as : (1) the kind of business; (2) controlship and ownership in a family; (3) there are family member that involve to the management. Using the research instrument such as question list and be completed by intensive interview list to study the informatioan and the data needed.

Result of The Research

The result shows that there are two types of industry that are service and goods (craft). Business of craft such as : Craft business (this craft can be made from Agel, Pandan, Ceramics, Silver, Letter of towel, Gold and Feather), traditional food (Geplak, Bread, Wingko, Gudeg, Bakpia) and the other dishes (fried chicken). While service business family include of retail service, healthy service (public clinic and beauty clinic) and consultant business. Over all, the distinguish shows in the table 1 :

Table 1. Types of family business

No	Type of Family Business	Quantity
1	Service	15 business (30%)
2	Craft	35 business (70%)
	Total :	50 business

Source : Data Processed (2017)

Table 2. Demographic of Respondent

No.	Information	Frequency	Quantity
Age			
1	Less than 35 years	13	26%
2	36 to 55 years	24	52%
3	More than 56 years	13	26%
Sex			
1	Man	26	52%
2	Woman	24	48%
Generation Status			
1	First generation	28	56%
2	Second generation	21	42%
3	Thirt generation	1	2%
4	More than 3 generation	-	0%
Manager			
1	Direct owner	33	66%
2	Child/ son in-law	14	26%
3	Grand son in-law	1	2%
4	Other person (professional)	2	4%
Position			
1	Manager as the owner	44	88%
2	Manager	1	2%
3	Staff	2	4%

4	The others (Division/sepervisor)	3	6%
The sum of employee			
1	5 to 10 people	21	42%
2	11 to 15 people	6	12%
3	16 to 20 people	2	4%
4	More than 20 people	21	42%
Total of assets (except ground and building)			
1	Less than 50 million	12	24%
2	Between 51 million to 500 million	17	34%
3	Between 501 million to 10 billion	16	32%
4	More than 10 billion	5	10%
Kind of product			
1	Service	15	30%
2	Goods	35	70%

Source : Data Processed (2017)

The result (table 2) shows that sum of male family business (52%) and female (48%) with mostly about 36-55 years old. The owner of the business mostly the first owner, it takes from 66% response. The size of high medium level company has the asset more than 500 billion (ground and building not include). The test result of reliability and validity shows the stability and consistently instrument in measuring concept, and it helps to estimate the goodness of measure. This reliability test research use the consistency of Cronbach's alpha. An instrument looks reliable if it has minimum coefisien Cronbach's alpha 0,60 (Hair et al ,1995). Category Sekaran (1992) stated that reliability is good if alpha value between 0,80-1,0 ; category accepted if alpha value 0,60-0,79 and it less good if alpha value less than 0,60. This opinion is takes from Sekaran's opinion

(1992) and Hair et al, (1995), that is minimum value Corbach's alpha 0,60.

Individual performance constructs consisting of 4 (four) dimensions which include work performance, creative performance, innovation and work satisfaction all meet the validity requirements. The reliability test results show the stability and consistency of the instrument in measuring concepts and help estimate the goodness of measurements (Sekaran, 1992). Over all it shows in Table 3.

Table 3.
 The result of reliability and validity research

No	Variable	Loading Factor	Koefisien Cronbach Alpha
1	Attitude towards knowledge sharing (Att. KS)	Att.ks1 (0,821); att.ks2 (0,955); att.ks3 (0,922); att.ks4 (0,961)	0,953
2	Subjective norm (SN)	sn. 1(0,671); sn.2 (0,668); sn.3 (0,652); sn.4 (0,677)	0,966
3	Intention to knowledge sharing (IKS)	iks.2 (0,665); iks.3(0,649); iks4 (0,648)	0,907
4	Knowledge sharing behavior (KSB)	ksb.1 (0,707); ksb.2 (0,687); ksb.3 (0,540)	0,826
5	Perceived behavioral controll (PBC)	Pbc. 1 (0,712); pbc.2 (0,699); pbc.3 (0,616); pbc.4 (0,716); pbc.5 (0,695)	0,939

Source: Data processed (2017)

The technique of hypothesis test use path analysis with AMOS 14. It is testing the suitable model as study criteria goodness of fit. At the table 4 shows some suitability indeks and cut of value to make sure that,

does the model acceptable or nor?. At this stage, testing of the suitability of the model through review of various goodness of fit criteria. Following are some indexes of suitability and cut-off values to test whether a model can be accepted or rejected.

Table 4.
 The result of Goodness of Fit Model

Goodness of Fit Indicator	Cut Off Value	Result	Model Evaluation
Chi-Square (χ^2)	Be expected to be small	24,237	---
Significance Probability (p)	$\geq 0,05$	0,007	Sign.
CMIN/DF	$\leq 2,00$	2,424	Less good
GFI	0 (poor fit) till 1,0 (perfect fit)	0,904	Perfect fit
AGFI	$\geq 0,90$	0,568	Not good
TLI	$\geq 0,90$	0,854	Close to good
CFI	$\geq 0,90$	0,595	Not good
RMSEA	$\leq 0,08$	0,172	Not good

Source : primer data, (processed: 2017)

Statistics γ^2 - chisquare value seen good or satisfying if the chi-square value is low. The less γ^2 value the better model will be. It is accepting based on probability with cut-off value as $p > 0,05$ or $p > 0,10$ next the root mean square error of approximatario (RMSEA) that shows the goodness of fit that be expected, if the model estimated in population (Hair 2006). RMSEA's value that smaller or equal 0,08 are indeks to get acceptance of model which is shows a close fit from the model based on degrees of freedom. Goodness of fit indeks (GFI) are nonstatistical size which has range value between 0 (poor fit) to 1.0 (perfect fit). High value of GFI shows 'better fit'. Adjusted goodness of fit index (AGFI) with level acceptance that

recommended if AGFI has the value or bigger than 0.90. Tucker Lewis index (TLI), is incremental index that compare a tested mode toward a base line model, where value that recommended as reference for acceptance of a model is 0,95 (Ferdinand 2002) and if the value close to 1, it shows a very good fit. Next, if comparative fit index (CFI) value close to 1 , indicate highest fit level (Arbuckle 1997). Recommended value is CFI = 0,90. Analysis path result use AMOS looks from significancy size of regression weight model which can we see at table 5.

Table 5.

The Result of Regression Weights: (number 1 Groub – Default model)

			Estimate	S.E.	C.R.	P	L
AttKS	<---	SN	,194	,109	1,783	,075^	
IKS	<---	AttKS	,730	,231	3,162	,002	
IKS	<---	PBC	,525	,157	3,344	***	
IKS	<---	SN	-,056	,161	-,351	,726	
KSB	<---	PBC	,999	,116	8,648	***	
KSB	<---	IKS	,174	,078	2,241	,025	

Source : primer data, (processed: 2017)

^significant in p = 10%

Explanation :

- AttKS : Attitude Knowledge Sharing
- IKS : Intention Knowledge Sharing
- KSB : Knowledge Sharing Behavior
- SN : Subjective Norms
- PBC : Perceived Behavior Controll

Path analysis test results tools analyze AMOS shows that path research which has significant connection if P value (significancy level) less than 5 % (<0,05). P value of p <

0,05 is include on influence between subjective norms towards knowledge sharing behavior (p=0,075) attitude toward knowledge sharing to intention to knowledge sharing (p=0,002); procedural behavior control to intention knowledge sharing (p=0,000); procedural behavior control to knowledge sharing behavior (p=0,00); intention knowledge sharing behavior (p=0,025). Besides, subjective norm to intention knowledge sharing (p=0,726) weak or do not meet the requirements.

Statement H1: Subjective Norm (SN) affect toward intention to do knowledge sharing . Based on test result using AMOS shows coeficient value standardized beta subjective norm (SN) toward knowledge sharing behavior (KSB) about 0,075 unsignificiant p<0,05 but it can be significant on p=0.10 (10%). It means that hypothesis 1 unsupport in this study. This result not in line with studied of Teh and Yong (2011), Bock, Kim, Zmud, and Lee (2005). This condition is possible to the existence of subjective/ norms influence the owner business family to share their knowledge. This beliefs affected by relevan individual importance. Family business manajement has wisement control, such as : compensasion, performance, and career path. Therefore the next generation and the owner of family business will involved knowledge sharing behavior.

Statement H2: Subjective norms (SN) affect toward intention to do knowledge

sharing (IKS). The result shows $p= 0,726$ means there are no significant influence between subjective norms with intention to sharing knowledge to other. Therefore hypothesis 2 not be supported.

Statement H3: Attitude toward knowledge sharing (Att. KS) affect toward intention to knowledge sharing(IKS). This result showing significancy value $p=0,002$, it means hypothesis 3 supported in thi research it means attitude toward knowledge sharing of the owner business strengthen the intention to share their knowledge.

Statement H4: Intention Knowledge Sharing (IKS) influence toward knowledge share behavior (KSB). This result shows significant value about 0,025 ($p<0,05$). It means statement hypothesis 4 supported, that is intention to share knowledge strengthen the owner to share their knowledge. This result in line with invention research of Fishbein dan Ajzen (1975) and Ibragimova. Et al. (2012).

Statement H5: The behavior controll be felt (PBC) influence toward intention to share the knowledge (IKS). This result shows that hypotheses 5 be supported by ($p=0,00$). This result is appropriate with the research of Randall (1991) but not agree with the research of Chang (1998); Ryu et al. (2003) and Albarracin et al. (2001) that not supported the direct influence between the behavior control toward the intention of knowledge.

Statement H6: the behavior control be felt by (PBC) influence toward the

behavior knowledge (KSB). So, in the Hypotheses 6 be supported by significant value $p=0,00$. This result is appropriate with the research of Randall (1991)

The Implication and Recommendation

The result of this research shows that the Planned Behavior Theory can not be applied in the knowledge sharing model absolutely, especially in the family business. In the general result, explain that the intention of the business owner be influenced by the attitude and the controll of their behavior. The modification be conducted in this theory shows that subjective norms influence the knowledge attitude, therefore, subjective norm and attitude are not independent each other. This result is agree with the research by Chang (1998); Seppherd, Hartwick & Warshaw (1988) Ryu et al. (2003). There are the behavioral controll that be felt has significant influence in the intention and the attitude to do knowledge sharing. This result explaine that there are behavior controll will strengthen the intention and the behavior of someone in the certain condition. There are some situations of controll the behavior such as when the owner of family business only has little bit information, the change of the source, or there are an experience in the past and new element has not be known, there will be influence the intention and the attitude behavior.

Therefore, there are interesting finding in this research that subjective norm is not influence the intention of knowledge sharing, this condition is not appropriate with the research by Taylor & Todd (1995); Ryu et al., (2003). The subjective norms include: (a) the normative beliefs is a belief that appear of the influence from the others about something that their believes, for example : the oppinion from public figure or role model, and (b) the motivation to comply, there are motivation of someone to fulfill the expectation to the others. The insignificant result of research influences between subjective norm toward the possibility of intention because the limitedness of the information from the other party. There are related to the benefit of sharing knowledge to the next generation and the weakness to fullill the expectation of the next generation. Subjective norm also be influenced by social factor, culture, individual and psychology (Peter & Olson. 1996).

This research has the implication to the practitioners, academics, and the agent of family business. First, the owner of family business should be has good perception in appreciate the knowledge sharing. So, the organization and the government give the facility about this codition, because the controll of behavior that be felt has an influence toward the intention of behavior. Second, a family business is made in order to get the condusive to support the behavior to sharing the knowledge. Third, the knowledge

managment system should be developed to increase the access to the information. Whereas, the next recomendation research is there are the other variable of behavior and the research of the longitudinal of behavior.

References

Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665-683.

Ajzen, I., & Fishbein, M., 1975, *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, 129-385, Addison-Wesley

Bandura, Albert. 1977. *Social Learning Theory*. Prentice-Hall, Inc., New Jersey

Bock, G. W., and Kim, Y. G., 2002a. Breaking the Myths of Rewards: An Exploratory Study of Attitudes about Knowledge Sharing. *Information Resource Management Journal*, Vol.15, No. 2, pp. 14-21.

Bock, G. W., and Kim, Y. G., 2002b. *Determinants of the Individuals Knowledge Sharing Behavior: The Theory of Reasoned Action Perspective*. Paper presented at Pasific-Asia Conference on Information System (PACIS), Meiji University, Tokyo, Japan, pp.1008-1023.

Bock, G.-W., Zmud, R.W., Kim, Y.-G., and Lee, J.-N. 2005. Behavior intention formation in knowledge sharing: examining the roles of extrinsic motivators, social psychological forces, and organizational climate, *MIS Quarterly* (29:1). pp.87-111.

Cabrera, E. F., and Cabrera, A. 2005. Fostering knowledge sharing through people management practices. *International Journal*

of *Human Resource Management*, Vol.16, p. 720–735.

Chang M K. 1998. Predicting Unethical Behavior: A Comparison of The Theory of Reasoned Action and The Theory of Planned Behavior. *Journal of Business Ethics*.17(16): 1825-1834.

Collison, C. and Parcell, G. 2004. *Learning to fly - practical knowledge management from leading and learning organizations*, Capstone Publishing, ISBN 1-84112509-1.

Collins, K.G. Smith Knowledge exchange and combination: the role of human resource practices in the performance of high technology firms.

Cummings, S., Heeks, R., and Huysman, M. 2006. Knowledge and learning in online networks in development: A social-capital perspective, *Development in Practice*, 16(6): 570-586.

Damodaran, L. and Olphert, W. 2000. Barriers and facilitators to the use of knowledge management systems. *Behaviour and Information Technology*, 19(6), pp.405-413.

Davenport, Thomas H and Prusak, L.1998. *Working knowledge:how organizations manage what they know*. Boston: Harvard Business School Press.

Ferdinand. 2006. Metode Penelitian Manajemen. Semarang: BadanPenerbit Universitas Diponegoro.

Hair, J.F. 2006. *Multivariate Data Analysis*. Edisi 5. Jakarta: Gramedia PustakaUtama.

Hall, A., Nordqvist, M. 2008. Professional management in family businesses: Toward an Extended Understanding. *Family Business Review*: 21(1), 51-69.

Hansen, S., Avital, M. 2005. Share and Share Alike: The Social and Technological Influences on Knowledge Sharing Behavior, Case Western Reserve University, USA. *Sprouts: Working Papers on Information Systems*, 5(13). <http://sprouts.aisnet.org/5-13>

Ibragimova ,Bashorat., Sherry D. Ryan, John C. Windsor, and Victor R. Prybutok. 2012. Understanding the antecedents of knowledge sharing: an organizational justice perspective. *Informing Science: the International Journal of an Emerging Transdiscipline*, Vol. 15.

Lee, G., and Cole, R. 2003. From a firm-based to a community-based model of knowledge creation: the case of the Linux kernel development. *Organization Science*, 14(6), 633-649.

Lin, Chin-Yen, Tsung-Hsien Kuo. 2007. The mediate effect of learning and knowledge on organizational performance. *Industrial Management & Data Systems*. Vol.107, No.7, p.1068.

Lin, Wen Bao. 2007. Factors affecting the correlation between interactive mechanism of strategic alliance and technological knowledge transfer performance. *Journal of High Technology Management Research*. Vol.17 p.139-155.

Park, H., Son, S. Y. Lee, S., and Yun, S. 2009. Organizational justice and knowledge sharing.

Peter dan Olson, 1996. Perilaku Konsumen dan Strategi Pemasaran. D. Sihombing (penerjemah). *Consumer Behavior*. Gelora Aksara Pratama. Jakarta *International Journal of Business Research*, 9(4), p.180-185.

Porter, M.E. 1990. *The competitive advantage of Nations*, Free Press, New York.

Randall, M.D. and Cote, J.A. 1991. Interrelationships of Work Commitment Constructs. *Work and Occupation*.

Ryu S., Ho S.H., and Han I. 2003. Knowledge sharing behavior of physicians in hospitals, *Expert Systems with Applications* (25), pp.113-122.

Sekaran, Uma. 2006. *Research methods for business, 4th Edition*. Yon, Kwan Men (penerjemah). Metodologi Penelitian Bisnis, Edisi 4. Salemba Empat. Jakarta.

Teh, Lee and Chen Yong. 2010. Knowledge sharing in IS personel: organizational behavior's perspective. Summer 2011. *Journal of Computer Information Systems*. Received: November 1.

Tracey, Denis. 2001. *Family Business - Stories from Australian family business and the people who operate them, the volatile mix of love, power and money*, Melbourne: Information Australia.