



**APPLICATION OF KNOWLEDGE SHARING IN FAMILY BUSINESS: LINKAGES OF
ORGANIZATIONAL JUSTICE AND BEHAVIOR PLANNED ON INDIVIDUAL
PERFORMANCE - AN EMPIRICAL STUDY IN YOGJAKARTA REGION, INDONESIA**

Nur Wening*

Mugi Harsono**

Abstract: *This research was conducted on a family business that is in Yogyakarta, Indonesia. Reasons for choosing the family business as a subject of research is the uniqueness in our beliefs and core values that still survives in the family business. Use the respondents 50 business units consisting of two types of industry, services and goods (crafts). Structural Equation Modeling (SEM) analysis as a tool to test the hypotheses of the study. The results showed that organizational justice has a role in the behavior of knowledge sharing and influencing attitudes do knowledge sharing. Someone who looks at there is justice in an organization will show behavior that is cooperative. Another point show that behavior knowledge sharing would affect the improving performance of the individual, but if supported by perception of an individual believe that he is capable of engaging in behavior that focus.*

Keywords: *family business; knowledge sharing; organizational justice; individual performance*

*Student, Doctoral Program in Economics, Faculty of Economics and Business, Sebelas Maret University of Surakarta, Central Java, Indonesia.

**Lecturer, Doctoral Program in Economics, Faculty of Economics and Business. Sebelas Maret University of Surakarta, Central Java, Indonesia.



INTRODUCTION

Business data in Indonesia showed nearly 96% of the business in Indonesia is a family business (<http://www.depkop.go.id>). Data of the Central Bureau of Statistics (2007) stated that the family business in Indonesia is an organization which contribute greatly to the Gross Domestic Product reaching even 82,44% (<http://www.bps.go.id>). Contribution to GNP amounting to 80% (Casillas, Francisco and Ana, 2007). A Survey conducted the Central Bureau of Statistics (2007) in the National Economic Survey 2006 states that in Indonesia there are 48.929.636 companies as much as 90,95% categorized as family firms. The survey results also obtain data that the family business contributed 53,28% of GDP and absorbs approximately 85.416.493 people as labor or 96,18% of the entire labour force.

The development of family business in Indonesia in general, starting from the close-circle family or immediate family. Research the Jakarta Consulting Group shows that family business originally founded by a single fighter (Susanto Susanto, Wijanarko and Mertosono, 2007) with further partners close-circle family or immediate family, ranging from husband/wife, brother, until a close friend. The closeness of this relationship is related to confidence and commonality of vision.

The plural phenomena in the family business was the founder has a focus on developing organization to endeavor and survived. The next development, when the organization began to grow big and strong, a second generation and extended family, including brothers and sisters, nephews and grand children began to come in, even became the dynasty of family.

Family business is a family owned business, in the creation and retrieval of organizational policy is dominated by members of the kinship group (Carsrud,1994). A business is said to be the family business while the domination of the family members included in groups with the nexus family emotionally and visually appears. Family business employing others to occupy a position not as decision makers, while the position of decision makers and top level rests with the family.

Family participation in business will strengthen the organization, because usually a family member have a loyalty and dedication to higher toward his family's business. Tracey (2001) business is a family business if its owners think it is and want it to be. This statement



contains the meaning that the organization belongs to the family business if the owner thinks his business and want as a family business.

The Family business has a strong belief in the uniqueness and the core values that still survive. The role of the founders was instrumental in establishing the identity of the Organization, the basic beliefs, and business goals. Business purposes generally is an advantage. The achievement of corporate business profits combined with the interests of shareholders. The success of the family business is the ability to create profit and grow as the family. The uniqueness of the other family business that is the pattern of ownership, management and succession which affects the company's goals, strategy, structure, each formulated, designed and implemented (Chua, Chrisman and Sharma, 1999).

Family business develops the unique ability and resources related to the ability to outperform non-family business. The unique capabilities of the family business came as a result of the interactions that occur between family members, non-members of the family and the business (Simon and Hitt, 2003). Family business research should emphasis the uniqueness of it, because of the uniqueness that makes the management of the family business as a science, which deserves a distinguished from other science and should be researched (Chua, Chrisman and Sharma, 1999). The family business is an area of research that is still growing (Sten, 2006).

Previous research using a variety of research perspectives and topics such as relationships (Dunn, 1999), business, productivity and change (Harvey and Evans, 1995), Regulation (Malinen, 2001). The topic of knowledge management in family business have not been much researched. During this research the subject more using knowledge management in large organizations with high-tech technologies (Felicia et al., 2008; Alhawamdeh, 2007; Herschel and Jones. 2005; Dous, et al. 2005).

Research of knowledge management in the family business before reviewing the tacit knowledge as well as organizational performance (Ngah and Jusoff, 2009). Knowledge is one of the elements that are supposed to be divided into the next generation of internal strength and become a difficult organization adapted competitors. On the current economic era, knowledge has character as intangible factors of production, cooperation and strategic partnership-forming, as well as the independent fast in the network strategy work, that is knowledge-based economy.



Knowledge is embedded in every individual and each individual has a different knowledge to each other. As a valuable asset should the organization manages knowledge for good (Davenport and Prusak, 1998). Knowledge is the critical resource organization that provides sustainable competitive advantage in a competitive and dynamic economy (Davenport and Prusak, 1998; Foss and Pedersen, 2002; Grant, 1996).

Knowledge management in this research is a system created to create, document, categorize and disseminate knowledge in the organization. In practice, the knowledge management includes identifying and mapping intellectual assets of the organization, the creation of new knowledge as a competitive advantage, simplify and increase the accessibility of information corporations, sharing, as well as the utilization of technology to facilitate these activities (Collison and Parcell, 2004). One of the elements that determine the success of knowledge management is successful implementation of knowledge sharing (Park et al., 2009). Knowledge sharing is an important element in effective knowledge management (Bock et al., 2005).

Knowledge sharing between employees and between team members allows organizations to exploit and utilizing knowledge-based resources (Cabrera and Cabrera, 2005; Damodaran and Olphert, 2000; Davenport and Prusak, 1998). Research shows that knowledge sharing and joint will positively related to a reduction in production costs, improvements in new product development, team performance, the ability of innovation company, and the company's performance, including sales growth and revenue for new product or service (Cummings, 2004; Hansen, 2002; Lin, 2007).

Based on the exposure to the identified research gaps there are, first, the outcomes of knowledge sharing previous research more on organizational performance (Huang, Tsu-Te, Andrew et al., 2010) while individual performance so far observations have not done much research, both antecedent in equalities of the knowledge sharing have not been much used the perspective of organizational model of justice. Research of Van der Heyden et al., (2005) limited on procedural justice, while Bock et al., (2005), and Ibragimova et al., (2012) use a model of organizational justice but combined with the Theory of Reasoned Action (TRA).

Research on knowledge sharing in the antecedent the perspective of the theory of planned behavior ever done Sharma et al., (2003a), Johnny Bolloju and C.F. Managers (2005) as well as Gagne (2005) but using a study of the theory of reasoned action (Yeh, Chi-Hung et al.,



2010). The influence of dimensions of organizational justice (distributive, procedural and personal justice) indirectly on tacit knowledge sharing through the mediator variable never researched Lin (2006). Being Ibragimova et al. (2012) examining knowledge sharing from the perspective of organizational justice combined with the Theory of Reasoned Action (TRA).

The uniqueness of this research is on the merger application model of organizational justice and Theory of Planned Behavior (TPB) in knowledge sharing with family business research settings. Reasons to replace the theory of reasoned action (TRA) and planned behavior theory (TPB), the TPB has more benefits as compared to the TRA, including the ability to foresee and understand the motivational influences on behavior that is not under the control of or individual will power alone. Theory of Planned Behavior developed to predict behavior that is not entirely under the control of the individual.

The Theory of Planned Behavior adds decisive intensi behave that perceived behavioral control (PBC). PBC is determined by two factors: the control of limiting beliefs (beliefs about ability in controlling) and perceived power (the perception about the powers that belong to perform a behavior). PBC indicated that the motivation of someone doing something (sharing) is influenced by the perception of the level of difficulty or ease in showing a particular behaviours. If someone has strong beliefs about control factors that would facilitate the behavior, then he has the perception that high to control behavior and vice versa.

THE PROBLEM OF STUDY

Research Ibragimova, et al. (2012) reference research Bock et al. (2005) declaring that attitude toward sharing knowledge subjective, a norm and dimensions procedural justice influential directly into intention to share knowledge, while the dimension distributive justice and interactional influential indirectly on intention to share knowledge by mediation variable attitude toward sharing. These issues need to be researched further associated encouragement construct organizational the justice. The next problem is about the concept and construct a model that is mediated by the characteristics of the individual and not yet measured previous studies. In addition, a number of research and knowledge sharing have not yet found the application model of organizational justice with a number of key variables, the intention to share knowledge and knowledge sharing, as well as individual performance (Folger and Cropanzano, 1998; Greenberg, 1990; Cropanzano et.al. 2000).



1. Do organizational justice (distributive justice, procedural and interactional) influence behavior of knowledge sharing?
2. Do organizational justice (distributive justice, procedural and interactional) to affect in attitude on sharing knowledge?
3. Whether in attitude on sharing knowledge affecting intent on sharing knowledge?
4. Whether a subjective norm affect intention to knowledge sharing?
5. Whether a subjective norm affect in attitude on sharing knowledge?
6. Whether the perception of control behavior to affect intent on sharing knowledge?
7. Are perceived behavior control influence behavior of knowledge sharing?
8. Whether intention to knowledge sharing knowledge sharing would affect behavior?
9. Whether the behavior of knowledge sharing will affect the performance of individual?

IMPORTANCE OF STUDY

1. The influence of variable subjective norms directly at individual performance, in addition of variable procedural justice affect intention to knowledge sharing and variable attitude towards knowledge sharing on individual performance.
2. In a practical indicated that the performance of individual to be influenced by many of variable, someone, namely attitude subjective norms and knowledge sharing behavior. Sharing cultural knowledge, should exist in the company especially family business.

LITERATURE REVIEW

Knowledge Sharing and Organizational Justice

The position of knowledge in the information age is equivalent to the existence of energy power plant in the industrial age. In the current information era paradigm of capital growing, formerly capital scope revolves around the financial capital, infrastructure, and other entities. But nowadays intellectual capital realized capital is very important to boost the value of the company. The concept of knowledge based society which was conceived by Peter f. Drucker (1966) the mainstream way of thinking, not just the business but the practitioner academics in building a business foundation puts intellectual capital. Wenig (1996) define knowledge as cognitive system processes. This sense shows invalid constructs that could not directly observed.



The study of literature show that the company which manages knowledge well is a successful (Davenport and Prusak, 1998; Nonaka and Takeuchi, 1995). The results also indicated that knowledge management useful in organization (Ash and Burn, 2003; Bendoly, 2003; Huin, et al, 2003). According Huin et al. (2003) many knowledge in company would touch planning and process management. Thus sharing knowledge is one of the pivotal to the management knowledge. Sharing knowledge a substantial role when this innovation especially its role in performance (Lee et al., 2005). Besides, sharing knowledge leveraging performance (Du, Rong, et al., 2007).

One of the keys to successful knowledge management lies in knowledge sharing (Nonaka and Takeuchi, 1995; Alavi and Leidner, 2001; Park, A Son, Lee, and Yun, 2009). Knowledge sharing is one of the important process of knowledge management, which gradually evolve and improve the production system as well as the elements that formed (Du and Ren Ai., 2007).

Organizational justice refers to the study of justice in arrangement organization derived from work aimed to understand the issues of justice in social interaction (Greenberg and Colquitt, 2005). Organizational justice includes three dimensions: justice interactive, procedural, and distributive, opinion Cropanzano et. al, (2000) that employees will evaluate justice organizational classification in three distinct event, namely the results they received from the organization (justice distributive), policy formal or a process by which an attainment allocated (equity procedural), and treatment taken by the decision makers between personal in organization (equity interactional).

Hypothesis 1a: the positive influence of organizational justice distributive dimension in knowledge sharing behavior.

Hypothesis 1b: the positive influence of organizational justice procedural dimension in knowledge sharing behavior.

Hypothesis 1 c: the positive influence of organizational justice interactional dimensions on knowledge sharing behavior.

Opinion of the Folger and Cropanzano (1998) in Parker and Kohlmeyer (2005), defining justice organizational as a condition of employment which redirects the individual in the belief that they are treated fairly or unfairly by the organization. Further explained that organizational justice is an important environmental work motivators. When individuals feel



the moral injustice, they will go down, there is even the possibility of leaving his job, even revenge against his organization.

Research of Bock et al. (2010) about the application of components organizational the justice to the process of knowledge sharing knowledge sharing point out that occurs when the parties involved feel: (1) the input them in an adequate manner valued with the benefit of obtained, (2) the existence of procedure and fair, and (3) no treatment dignity and honor. Factor distributive, procedural, and interactional determine willingness involved in partnership knowledge sharing.

The hypothesis of 2: the absence of a positive influence between distributive justice in attitude toward knowledge sharing behavior.

The hypothesis 3: the absence of a positive influence between procedural justice in attitude toward knowledge sharing behavior

The hypothesis 4: the absence of a positive influence between interactional the justice in attitude toward knowledge sharing behavior.

THEORY OF PLANNED BEHAVIOR (TPB)

The theory is based on the assumption that a man is a rational being and uses information sistimatically. People think of the implications of their action before deciding to do or not to do a certain behavior. This theory provides a frame for studying attitude toward behavior. Conduct of one is most important determinant intention to behave. Intention individual showing behavior combination the attitude and subjective norms. Attitudes of individuals against behavior of a behavior, covering trust evaluation of results of conduct, subjective, a trust normative and motivation to obey.

Knowledge sharing is intentional behavior so that this research using the Theory of Planned Behavior where the intention is assumed to capture the factors which affect the motivation of behavior (Ajzen, 1991). Three factors that affect the intention: (1) attitude toward the behavior, (2) social norms related to behavior, and (3) beliefs about one's control over the behavior.

Research of Bock and Kim (2002) and Bock, Kim, Zmud, and Lee (2005) on 27 organization in Korea found that dealing with norms subjective attitude and sharing knowledge behavior. There were also a positive relationship between with intention attitude and behavior sharing knowledge. Attitude toward behavior based on sharing knowledge belief about the



consequences expected behavior of a certain behavior and evaluation favorable or unfavorable from the consequences. Subjective norms viewed as combination felt by individuals or groups relevant intention comply with hope. In other words, many people's perception that he should or not do (Ibragimova et al. , 2012).

Hypothesis 5: the a positive influence subjective norms sharing knowledge on attitude toward knowledge sharing.

Hypothesis 6: the a positive influence subjective norms sharing knowledge on intention to knowledge sharing.

Hypothesis 7: the a positive influence between attitude toward sharing knowledge on intention to knowledge sharing.

Behavior intention is defined as a decision made a certain behavior and motivation to act is a summary or an intention to do the actual behavior (Ibragimova.et al.,2012). Definition of intention to behave in this research was the decision person performing a particular behaviours and a summary the motivation to act, the more individuals intends to do something, the greater the likelihood a behavior will occur.

Hypothesis 8: any intention to influence knowledge sharing in knowledge sharing behavior.

Research of Chang (1998) stated that the perceived behavior control (PBC) is a predictor of intention to behave better than attitude, so that the theory of planned behavior better than reasoned actioned in predicting behavior unethical. Ajzen (1975) States the control behavior is related to the concept of self efficacy perception developed by Bandura (1977) assessment of how well a person can execute programs/action required to deal with situations that prospective '.

Randall (1991) research indicates that the PBC had a statistically significant influence on intention to behave knowledge sharing (behavioral intention to share).

Hypothesis 9: the positive influence of perceived behavior control on intention to knowledge sharing.

Hypothesis 10: the positive influence of perceived behavior control on knowledge sharing behavior.

The study reveals that knowledge sharing knowledge sharing is the process of recombination and the evolution of knowledge (Lee and Cole; 2003) and globalization are



siding with the organization in order to be able to create and share knowledge more effectively and efficiently than competitors (Porter,1990).

Knowledge sharing efficient and effective necessary to identify the impact on the performance of individual. When doing knowledge sharing related to the performance of individual, a person assumed to accumulate; adopt and sharing knowledge in order to perform as well at work. Previous studies discuss the relation between knowledge, sharing with the performance of both the team or individual. Although empirically has not been consistently of supporting the influence knowledg sharing will increase the performance of team.

Research of Bock, Zmud, Kim, and Lee (2005) about the factors that affect the knowledge sharing on the individual, using the Theory of Reasoned Action in support of the argument that extrinsic motivators that includes social and psychological factors, influencing the organizations intention factors to knowledge sharing on the individual. From exposure to it can be inferred that knowledge sharing have a strong influence on the performance of individual.

Hypothesis 11: presence of positive influence among knowledge-sharing behavior on individual performance.

METODOLOGY OF RESEARCH

The subject of this research is the owner of a family business that more leading to small and medium companies, neither of which is still maintained by the owner directly or have already occurred over the generations. Location research in the special region of Yogyakarta (DIY) covering an area 4 district and municipality (Municipality of Yogyakarta, Bantul Regency, Sleman Regency, Gunungkidul Regency and Kulon Progo Regency). The reason is because of the DIY area selection is one of the centers of the SMEs (Small Micro and Medium Enterprises) in Indonesia, where the family business in Indonesia categorised the majority of Small and Medium Enterprises.

Malhotra (1993) the size of the samples taken can be determined by multiplying the number of variables with 5 (five), meaning that this research sample size minimum = $9 \times 5 = 45$. The number of questionnaires distributed research amounted to 90, but the rate of return by as much as 50 pieces with 1 questionnaire failed to be processed due to incomplete.



After the specified number of samples will be made respondents, the withdrawal of data is done using non-probability sampling approach, because of the size of populations is unknown (Maholtra, 2005) and the type of the selected sampling of purposive sampling or selection of samples intended to subjectively (Ferdinand, 2006). The selection of this type based on specific criteria and assessment that can represent both statistics, significance, and testing procedure hypothesis (Ferdinand, 2006). The criteria set out in this research are: (1) business was founded by a family; (2) the control and ownership are in one family and (3) a family member is involved in the management.

Organizational Justice

Organizational justice reference to the study of justice in arrangement organization and derived from work in social psychology that aims to understand the issues of justice in social interaction. Organizational justice includes three dimensions: justice interactive, procedural, and distributive (William, Pitre, and Zainuba, 2002).

Interactional Justice

Interactional justice is useful aspect of the theory of organization justice, who claimed that an individual has a sense of sensitive to the quality of maintaining interpersonal that they receive from the manager or firm in implementation procedures organization. The measurement of justice interactional in this research using the measurement of used Niehoff and Moorman (1993) with the number of questions as much as 4 items with likert scales 1-7. Procedural justice more focus on transactions fair in decision making. Employees interested to know how decisions are made and the manner of its manufacture. Procedural justice measured using measurement once used by Robinson et al. (1999) by the number of questions as many as five items with likert scales 1-7.

Distributive Justice

Distributive justice is the assumption of justice for the result of the organization in conjunction with an individual or group, the input justice is dominated by the theory of congruency (Thornhill and Saunders, 2003). Justice of the distribution of done measurement by Moorman (1991) as much as 4 items questions with likert scales 1-7.



Theory Planned Behavior

Attitude toward knowledge sharing

Attitude in this research operationality as a gesture sharing knowledge possessed to others. Attitude defined as dimensions evaluative affective or bipolar toward behavior. Attitude measured using behavioral beliefs and evaluation about the consequences on a questionnaire theory of planned behavior that construct based on method propounded by Ajzen (2002). Measurement attitude knowledge sharing this research use measurement of Bock et al. (2005); Brown and Venkatesh (2005); Pavlou and Fygenon (2006); Srite and Karahanna (2006) as 4 items questions with likert scales 1-6.

Subjective Norms

Subjective norm is one's perception of social pressure to do or not do an act or behaviour. Operationality of subjective norms are subjective norms on questionnaire scores theory of planned behavior. Subjective norm measured using items normative beliefs and motivation to sharing on the questionnaire was constructed based on a method proposed by Ajzen (2002b). Subjective norms in this study measured using 4 items of questions used by Cheng, C.M., and Chen, L.J. (2007).

Perceived Behavioral Control to Knowledge Sharing

Perceived behavioral control is the perception of the ease or difficulty in performing the behavior and experience reflect the assumed in the past and anticipation about the hitch. Perceived behavioral control is measured by using the items control belief and strength control power on the belief the questionnaire theory of planned behavior that is constructed based on a method proposed Ajzen (2002b). Measurement of perceived behavioral control variables in this study using 4 item questions that have been used by Madden et al. (1992) as well as Ajzen and Madden (1986).

Intention to Share Knowledge

Intention behavior defined decision someone to do certain behavior and is a summary the drive to do in more individuals, namely intention to do something will be high if the more likely encouragement behavior will do. Measurement variable intention to share knowledge in research is using measurement used by Cheng and Chen (2007) as 4 items question.



Knowledge Sharing Behavior

Sharing knowledge behavioral is belief individual (employees) about a consequence or result to be had from behavior sharing knowledge to others. Besides knowledge sharing behavior can defined as the act of individuals because knowledge they should have (Nonaka and Konno, 1998). Measurement variable behavior share this knowledge with 3 items question used by Cheng and Chen (2007).

Individual Performance

Knowledge sharing efficient and effective necessary to identify the impact on the performance of individual. When doing are sharing their knowledge associated with the performance of individual, a person assumed to accumulate; adopt and sharing knowledge in order to perform as well at work. The performance of a person depends on a combination of capability, business and opportunities obtained (Dale, 1992).

The measurement of the performance of the individual in the family business using measurements used Muhammed (2006). According to Muhammed (2006) individual knowledge and effectiveness of knowledge management performance results should lead to the organization to realise the value of an activity (Hult, 2003). Individual performance according to Muhammed (2006) measured with 4 factors: the work performance, creative performance, innovation and work satisfaction.

Work performance is measured using 3 dimensions: efficiency, effectiveness and timeliness. Measurement of work satisfaction as used Hackman and Oldham (1980) and diagnostic surveys and conceptualizing two-dimensional job satisfaction and satisfaction of general growth. Work satisfaction measurement as measured by Hackman and Oldham (1980) the JSD (Job Diagnostic Survey) conceptualizing two-dimensional growth satisfaction and job satisfaction.

The performance of the idea, is the result of creativity new products and procedures and useful for organization (Madjar, Pratt, and Oldham, 2002). Using the method of measurement creativity and measurement Oldham Cummings (1996) for the performance of creative individuals. Innovation in an integral manner connected with the context of physical crucibles, the application of the operation therefore will lie naturally (Schon, 1983). Innovation is the process of a multistage in which the ideas produced may be just or



adoption, built to support it eventually be implemented as innovative or in the form of an artifact that outcome.

RESULT

Result of Descriptif Statistics

Industrial goods owned family business includes: business crafts (craft pandan, ceramics, batik, silver, gold, towel, skin; the traditional food such as geplak, wet bread, wingko, gudeg, bakpia; side dishes) for as much as 70% of the 50 businesses. A 30% service industry include: services of retail (stores), health (general clinic and beauty) and consultants. Research shows the number of entrepreneurs are men and women almost equally, i.e., male 52% of overall respondents. The majority are aged between 36 to 55 years (48%) and is a first generation as much as 56% of the overall respondents to serve as managers and owners (44%). The size of the majority of companies have total assets above 500 million (excluding land and buildings).

Results of Test Validity and Reliability

Testing reliability study using cronbach alpha consistency. An instrument is considered reliable if the minimum coefficient of cronbach alpha is 0.60 (Hair et al., 1995). Sekaran (1992) provide good reliability for value category alpha between 0.80 to 1.0; then a category acceptable if the alpha value is 0.60 to 0.79 and less good if the alpha value is less than 0.60. Opinions that are used in this research is now an opinion (1992) and Hair et al., (1995) the minimum value of cronbach alpha was 0.60.

Results cronbach alpha distributive justice comprising as 0,821 means four indicator is reliable. Similar results were also obtained on procedural justice, justice interactional variables was 0,926 and 0,860. The validity of the results obtained at also cronbach alpha variable stance on knowledge sharing (0,953), subjective norms (0,966), intent on knowledge sharing (0,907), control of behavior are perceived (0,939) and behavioral knowledge sharing (0,826). The individual performance of the validity of the test results has a value of cronbach alpha of 0,937.

Test Results of Model Assumptions

Normality

Univariate and multivariate normality of the data used in this analysis were tested using AMOS. Result of indicates that the evaluation identified both in univariate normality and



multivariate. In univariate for values in C.R skewness, four items of statement shows the as 2. While values in C.R curtosis value of all show as 7. Thus a univariate not distributed normally. Results the normality is Perceived Behavioral Control (PBC), Interactional Justice (IJ), Procedural Justice (PJ), Knowledge-Sharing Behavior (KSB) and Intention toward Knowledge Sharing (IKS) while others below and above normality but still moderate for under 21 (Ghozali, 1998).

Outliers

Test done multivariate outliers using mahalanobis distance criterion at level p less than 0.001. Mahalanobis distance is evaluated by using on a non-degree registration number of variables used in the study. There are nine indicator variables this research. Therefore, all cases had the Mahalanobis distance is greater than $\chi^2 (9; 0,001) = 27,877$ is multivariate outliers. The results show that there is a multivariate outlier on the observation number 18 and 27, the attention of KS-3 (an attitude towards knowledge sharing-3) 40,263 and IKS-4 (intention to sharing knowledge-4) because of the distance of each mahalanobis: 28,963 and greater mahalanobis distance from critical (27,877).

Test Analysis of The Suitability of the Hypothesis Model (Goodness of Fit)

This stage done testing of the suitability of the model through a review of the various criteria for goodness of fit. The value of chi-square statistic, the model is considered good or satisfactory when the value of the chi-square is lower. The smaller the value of the better models and accepted based on the probability of the cut-off value of $p > 0.05$ or $p > 0.10$. Then the root Mean Square Error of Approximation (RMSEA) shows the goodness of fit is expected when the model in the estimation of the population (Hair, 2006). RMSEA values less than or equal to 0.08 the index is to be received in a model that shows a close fit of the model was based on the degrees of freedom.

Goodness of Fit Index (GFI), is a measure of non-statistical that has a range of values between 0 (poor fit) up to 1.0 (perfect fit). A high value in this index indicates "better fit". The value Adjusted Goodness of Fit Index (AGFI), with the recommended level of acceptance when it has a value equal to the AGFI or greater than 0.90. Lewis Tucker Index (TLI), an incremental index that compares a model was tested toward a base line model, where the recommended values as a reference to the admissibility of a model is 0.95 (Ferdinand, 2002) and a value close to 1 indicates a very good fit. The next value of the Comparative Fit Index



(CFI), when approaching 1, indicates the highest level of fit (Arbuckle, 1997). The recommended value is the CFI = 0.90.

DISCUSSION

Results of the analysis indicate a connection path coefficient distributive justice on attitude towards KS ($p=0.012$), procedural justice to the attitude towards KS ($p=0,058$), subjective norms on attitude to knowledge sharing ($p=0.075$); attitude toward knowledge sharing on intention to knowledge sharing ($p=0.002$); procedural behavior control on knowledge sharing intention ($p=0.000$), procedural justice on the intention of the knowledge sharing ($p=0.000$); procedural behavioral control on knowledge sharing behavior ($p=0.000$); distributive justice on the knowledge sharing behavior ($p=0.003$), intention to knowledge sharing in knowledge sharing behavior ($p=0.025$), knowledge-sharing behavior on individual performance ($p=0.000$), subjective norms on individual performance ($p=0.000$) and attitude toward knowledge sharing on individual performance ($p=0.001$).

The results show a dimension of organizational justice is distributive justice (DJ) have an influence on the behaviour of knowledge sharing (KSB) with a value of $p=0.003$. The hypothesis 1a is supported in this study. This means that statistically distributive justice dimension of organizational justice has a direct influence on the behavior of knowledge sharing. The results of this research are consistent with research conducted by (Osterloh and Frey, 2000; Gilliland, 1994; Konovsky, 2000; Konovsky and Cropanzano, 1991; Cropanzano, Prehar, and Chen, 2000). Next component beta coefficient value of procedural justice (PJ) against the behavior of knowledge sharing (KSB) for $p=$ insignificant at $p=0,998$ and 0.05. The hypothesis 1b is not supported in this study.

This means that statistically procedural fairness does not directly affect the behavior of sharing knowledge. Results of this study are inconsistent with research conducted by Kim and Mauborgne (1997); Colquitt (2001); Simons and Roberson (2003); Spitzm Iler et al (2006). Results of analysis data showed that the value of $p=0,363$ in interactional Justice on the behavior of the interconnectedness of knowledge sharing. The hypothesis 1c is not supported, it is not in line with the Folger and Skarlicki (1997) as well as Greenberg (2003).

The value $p=0.012$, to the interconnectedness of the attitudinal distributif justice knowledge sharing. In other words, this study supports the hypothesis of 2. These results are in line with research Osterloh and Frey (2000); She and Wei (2009). The results test hypothesis 3



shows coefficients component beta procedural justice (PJ) attitude towards knowledge sharing (Att. KS) of 0,058. It means there is a relationship between procedural justice with an attitude of knowledge sharing. These results are consistent with research conducted by Lind et al. (1993). Test results of how justice interactional on attitude toward knowledge sharing. indicates that the value of $p=0,887$. It means justice interactional not have relationships directly with the attitude of knowledge sharing (hypothesis 4 is not supported). These results are inconsistent with research results and Skarlicki and Folger (1997) as well as Greenberg (2003).

Based on the test results demonstrate the value of subjective norm component beta coefficients (SN) attitude towards knowledge sharing of 0.075 insignificant at $p<0,05$. It means hypothesis 5 is not supported in this study. These results are not in line with the research of Teh and Yong (2011) and Bock, Zmud, Kim, and Lee (2005). This is possible because the subjective norms will affect someone's intention to behave in a social environment. The condition is thus formed of normative beliefs which refers to the belief that the other person will engage in the behavior of sharing knowledge.

This belief is weighted by the relevant individual interests. In the context of the organization, it has relevance to the management. Management has control over some policies, such as employee compensation, performance appraisal and career advancement. Thus, the employee will comply with the expectations of management to engage in knowledge-sharing behavior. Test results of $p=0,726$ on the relationship between subjective norms on knowledge sharing intention in others. Thus the hypothesis 6 is not supported. It means there is no relationship between the subjective norms on the intention of knowledge sharing. Other test results show the value of significance $p = 0.002$ supported the hypothesis 7 that in this study. That is the attitude of knowledge sharing intention directly with influential knowledge sharing.

Results test hypothesis 8 show that the significance of 0,025 ($p<0,05$). That is hypothesized 8 supported, statement namely intention sharing knowledge have directly to behavior sharing knowledge. This result in line with research conducted by Fishbein and Ajzen (1975) and Ibragimova et al. (2012). Based on test results showed hypothesis 9 that is hypothesized supported $p= 0,0009$. This result as practiced by Randall (1991) but not in line with research findings Chang (1998); Ryu et al. (2003) and Albarracin et al. (2001) opponents direct



relation between control perceived intentions behavior on sharing knowledge. Results test hypotheses 10 having of $p = 0,000$. That hypothesis 10 supported.

These results according to research conducted Randall (1991). A statement in hypothesis 11 indicate that is hypothesized 11 supported, means sharing knowledge behavior have a direct influence with individual performance.

CONCLUSION

Organizational justice has a role in pushing behavior sharing knowledge inform the attitude to sharing knowledge. Someone who looks at there is justice in the overall conduct tending to demonstrate cooperative. The outcome demonstrates that knowledge other behavior individual performance improvement, affecting liquidity but if supported by perception the extent to which an individual believe that he is capable of engaging in behavior focus.

REFERENCES

1. Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*. Vol.32: pp. 665-683.
2. Alavi, M., and Leidner, D.E. 2001. Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues, *MIS Quarterly* Vol.25(1): pp. 107-136.
3. Alhawamdeh, Mohammad A. 2007. The Role of Knowledge Management in Building E-Business Strategy, *Proceedings of the World Congress on Engineering and Computer Science ,WCECS 2007, October 24-26, San Francisco, USA*.
4. Andrews, K.M. & Delahaye, B.L. 2000. Influences on knowledge processes in organizational learning: the psycho-social filter, *Journal of Management Studies*, Vol.37(6): pp.797-810.
5. Ash, C.G., Burn, J.M. 2003. A strategic framework for the management of ERP enabled e business change. *European Journal of Operational Research*. Vol.146(2): pp.374-86.
6. Bendoly E. 2003. Theory and support for process frameworks of knowledge discovery and data mining from ERP systems. *Information & Management*. Vol.40: pp.639–647.



7. 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(2): pp.14-21.
8. 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.
9. 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*. Vol.29(1): pp.87-111.
10. Bock, G.W., Shin, K.S., Suh, A., and Hu, A. 2010. The factors affecting success of knowledge-based systems at the organizational level, *Journal of Computer Information Systems*. Vol.50(2): pp.95-105.
11. Brown, J.S. & Duguid, P., 1991. Organizational learning and communities of practice. Toward a unified view of working, *Organization Science*. Vol.2(1).
12. Brown, S. A. and Venkatesh, V. 2005. Model of adoption of technology in households: a baseline model test and extension incorporating household life cycle. *MIS Quarterly*, Vol.29(3): pp.399-426.
13. Cabrera, E.F., & Cabrera, A. 2005. Fostering knowledge sharing through people management practices. *International Journal of Human Resource Management*, Vol.16: pp.720–735.
14. Carsrud, Alan. L. 1994. Meanderings of a resurrected psychologist or, lessons learned in creating a family business program. *Entrepreneurship: Theory and Practice*, 19: pp.40.
15. Casillas, J.C., Fransisco J.Acedo and Ana M.Moreno. 2007. *International entrepreneurship in family business*, Northampton: Edward Elgar Publishing, Inc.
16. Casillas, J.C. and Ana M.Moreno. 2007. *International Entrepreneurship in Family Business*. Edward Elgar Publishing Limited, USA.



17. 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*. Vol.17(16):pp.1825-1834.
18. Chen, I.Y.L., Chen, N.S., and Kinshuk. 2009. Examining the factors influencing participants' knowledge sharing behavior in virtual learning communities. *Educational Technology & Society*, Vol.12(1): pp.134–148.
19. Cheng, C.M., and Chen, L.J. A study on the knowledge sharing of health technology for technological college students' mobile learning, *International Journal of Education and Information Technologies*. Vol.1(1): pp.24-29.
20. Chua, J., J. Chrisman, and P. Sharma. 1999. Defining the family business by behavior, *Entrepreneurship Theory and Practice*, Vol.23(4): pp.19-40.
21. Collison, C. and Parcell, G. 2004. Learning to fly - practical knowledge management from leading and learning organizations, Capstone Publishing, ISBN 1-84112 509-1.
22. Cropanzo, R. and Folger, R.G. 1998. Organizational justice and human resource management, Sage, Thousand Oaks, CA.
23. Cropanzano, R., & Folger, R. 1991. Procedural justice and worker motivation. In Steers, R. M. and Porter, L. W. (eds.), *Motivation and Work Behavior*, 5th Edn., McGraw-Hill, New York, pp.131–143.
24. Cropanzano, R., Prehar, C.A., and Chen, P.Y. 2000. Using social exchange theory to distinguish procedural from interactional justice. *Group & Organization Management*, Vol.27: pp.324-351.
25. Cropanzano, R., Byrne, Z.S., Bobocel, D.R., and Rupp, D.E. 2001. Original contribution: moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior*, Vol.58: pp.164-209.
26. 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): pp.570-586.
27. Dale. 1992. Visible Language: Multimodal Constraints in Information Presentation Pages 281–283 in *Aspects of Automated Natural Language Generation*, edited by Robert Dale, Eduard Hovy, Dietmar Rosner and Oliviero Stock. Springer-Verlag.



28. Damodaran, L. and Olphert, W. 2000. Barriers and facilitators to the use of knowledge management systems. *Behaviour and Information Technology*, Vol.19(6): pp.405-413.
29. Davenport, Thomas H and Prusak, L.1998. *Working knowledge:how organizations manage what they know*. Boston: Harvard Business School Press.
30. Damodaran, L., and Olphert, W. 2000. Barriers and facilitators to the use of knowledge management systems. *Behaviour & Information Technology*, Vol.19(6), pp. 405–413.
31. Dous, M., Salomann, H., Kolbe, L., and Walter Brenner, W. 2005. Knowledge Management capabilities in CRM: Making Knowledge For, From and About Customers Work, *Proceedings of the Eleventh Americas Conference on Information Systems*, pp. 167-178, Omaha, NE, USA.
32. Du, R., Ai, S., & Ren, Y.2007. Relationship between knowledge sharing and performance: a survey in Xi'an,China. *Expert Systems with Applications*, 32, pp.38-46.
33. Dunn,B. 1999. The family factor: the impact of family relationship dynamics on business owning families during transitions, *Family Business Review*, Vol. 12, Issue 1, pp. 41 -60, March.
34. Felicia, A., Dorel Mihai Paraschivand and Irina Pugna. 2008. Business Intelligence & Knowledge Management-Technological Support for Strategic Management in the Knowledge Based Economy, pp. 5-12.
35. Folger R, and Konovsky, M. 1989. Procedural justice and culture: Effects of culture, gender, and investigator status of procedural preferences. *Journal of Personality and Social Psychology*, 50(6): pp.1134-1140.
36. Foss, N. and Pedersen, T. 2002. Sources of subsidiary knowledge and organizational means of knowledge transfer. *Journal of International Management*, 8, pp.49–67.
37. Gagne, M. 2009. A mode of knowledge sharing-motivation, *Human Resource Management*, July–August 2009, Vol. 48, No.4, pp. 571– 589.
38. Gargiulo, M., and Benassi, M. 2000. Trapped in your own net? network cohesion, structural holes, and the adaptation of social capital, *Organization Science*, Vol.11(2),pp.183-196.



39. Gold, Andrew H. Malhotra, A., Segars, A.H. 2001. Knowledge management: an organizational capabilities perspective. *Journal of Management Information Systems*.Vol.18, No.1, pp.185-214.
40. Grant. 1996. Toward a knowledge-based theory of the firm, *Strategic Management Journal*,Vol. 17 (7), pp.109-122.
41. Greenberg, J. 1990. Organizational justice: yesterday, today, and tomorrow. *Journal of Management*, 16, pp. 399-432.
42. G. W. Bock., et al. 2005. Behavioral intention formation in knowledge sharing: examining the roles of extrinsic motivators, social- psychological forces, and organizational climate, *MIS Quarterly*, Vol. 29, pp. 87-111.
43. Hafsah, Jafar. Muhammad. 2000. *Kemitraan usaha, konsepsi dan strategi*,Jakarta: Penerbit Pustaka Sinar Harapan.
44. 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>
45. Harvey, M., and Evans, R. 1995. Strategic windows in the entrepreneurial process, *Journal of Business Venturing*, 10, pp.331-347.
46. Herschel,R. and Jones, N. 2005. Knowledge management and business intelligence: the importance of integration, *Journal of Knowledge Management*, Vol. 9, No. 4, 45-55.
47. Huang, Tsu-Te (Andrew), Le Chen and Rodney A. Stewart. 2010. The moderating effect of knowledge sharing on the relationship between manufacturing activities and business performance, *Knowledge Management Research & Practice*, Vol. 8, pp.285–306.
48. Huin S, Luong L and Abhary K. 2003. Knowledge-based tool for planning of enterprise resources in ASEAN SMEs. *Robotics and Computer Integrated Manufacturing*. 19: pp. 409–414.
49. Ajzen. 1991. The theory of planned behavior, *Organizational behavior and human decision processes*, Vol. 50, pp. 319-349.



50. 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.
51. Ibrahim,A.B., Soufani,J. and Lam. 2001. A Study of Succession in a Family Firm. *Family Business Review*. Vol. XIV. No. 3. September.
52. Johnny C.F. So and Narasimha Bolloju. 2005. Explaining the intentions to share and re useknowledge in the context of IT serviceoperations, *Journal of knowledge management*,Vol. 9,No. 6, pp. 30-41.
53. King, William R. 2009. *Knowledge management and organizational learning*, Springer. New York.
54. Konovsky, M.A., & Cropanzano, R. 1991. The perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. *Journal of Applied Psychology*, Vol.76, pp.698-707.
55. Konovsky, M. 2000. Understanding procedural justice and its impact on business organization. *Journal of Management*, Vol. 26, No. 3, pp.489-511.
56. 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*, Vol.14(6), pp.633-649.
57. Lee, K., Lee, S., and Kang, I. 2005. KMPI: measuring knowledge management performance. *Information and Management*, Vol.42(3).pp.469–482.
58. Lin, H.F. and Lee, G.G. 2004. Perceptions of senior managers toward knowledge sharing behaviour, *Management Decision*, Vol. 42 No. 1, pp. 108-25.
59. 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, pp.1068.
60. 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 pp.139-155.
61. Lin,Hsiu-Fen.2011. Antecedents of the stage-based knowledge management evolution, *Journal of Knowledge Management*, Vol.15, No. 1, pp. 136-155.



62. Madden T, Ellen I, Pamela S, Ajzen I.1992. A Comparison of the Theory of Planned Behaviour and the Theory of Reasoned Action. *Personality Social Psychological Bulletin*, 18(1): pp.3-9.
63. Malinen P. 2001. Like father like son? Small family business succession problems in Finland. *Enterprise and Innovation Management Studies*, Vol. 2, No.3, pp.195-204.
64. Marques,D.V., Cardoso, Leonor and Zappalá,Salvatore. 2008. Knowledge sharing networks and performance, *Comportamento Organizacional E Gestao*, Vol. 14, No.2, pp.161-192.
65. Morgan, R.M. and Hunt, S.D. 1994. The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58 (3), 20. August 1.
66. Neil Rupidara. 2008. Modal intelektual dan strategi pengembangan organisasi dan sumber daya manusia. *Universitas Kristen Satya Wacana*. pp.1-27.
67. Ngah,Rohana and Kamaruzaman Jusoff. 2009. Tacit knowledge sharing and SMEs' organizational performance. *International Journal of Economics & Finance*.Vol.1, No.1, Februari.
68. Nonaka, Ikujiro. 1991. The Knowledge Creating Company, *Harvard Business Review* 69(6): pp.96-104.
69. Nonaka, Ikujiro. and Takeuchi, H. 1995. The knowledge-creating company. New York: Oxford University Press.
70. Nonaka, I. and N. Konno. 1998. The concept of 'Ba': building a foundation for knowledge creation, *California Management Review*, 40:3: pp.116-132.
71. Osterloh, M., and Frey, B. S. 2000. Motivation, Knowledge Transfer, and Organizational Forms, *Organization Science*, (11:5), pp. 538-550.
72. Park, H., Son, S. Y. Lee, S., and Yun, S. 2009. Organizational justice and knowledge sharing. *International Journal of Business Research*, 9(4), pp.180-185.
73. Parker, R.J. and J.M. Kohlmeyer. 2005. Organizational Justice and Turnover in Public Accounting Firms: A Research Note, *Accounting, Organizations and Society*, Vol.30,pp. 357-369.
74. Pavlou, P.A. and Fygenson, M. 2006. Understanding and predicting electronic commerce adoption: an extension of the theory of planned behavior. *MIS Quarterly*, 30(1),pp.115-143.



75. Porter, M.E. 1990. *The competitive advantage of Nations*, Free Press, New York.
76. Prahalad, C.K. and Hamel.G.1990. The core competence of the corporation. *Harvard Business Review*, (May-June), (68:3), pp. 79-91.
77. Prusak, L. 1999.What's up with knowledge management: a personal view. In J.Cortada & J. Woods (Eds.), *The knowledge management year book* (pp. 1-7).Boston: Butterworth Heinemann.
78. Robertson, Ivan T., et al. 2002. *Organizational effectiveness: the role of psychology*, John Wiley & Sons, Ltd. USA.
79. Ryu S., Ho S.H., and Han I. 2003. Knowledge sharing behavior of physicians in hospitals, *Expert Systems with Applications* (25), pp.113-122.
80. Skarlicki,D.P. & Folger, R. 1997. Retaliation in the workplace: The roles of distributive, procedural and interactional justice. *Journal of Applied Psychology*, 82: pp.434–443
81. Shang, S.S.C., Lin, S.F., and Wu, Y.L. 2009. Service innovation through dynamic knowledge management, *Industrial Management & Data Systems* (109:3), pp.322-337.
82. Sekaran, Uma. 2006. *Research methods for business*, 4th Edition.Yon, Kwan Men (penerjemah). *Metodologi PenelitianBisnis*, Edisi 4. Salemba Empat. Jakarta.
83. Schein, E.H. 1983. The role of the founder in the creation of organizational culture. *Organizational Dynamics*,Vol.12, pp.13-28.
84. Sharma, P., and Irving, P.G. 2005. Four bases of family business successor commitment antecedents and consequences. *Entrepreneurship Theory and Practice*, 29 (1): pp.13-33.
85. Shaw M, Subramaniam C, Tan W and Welge, M. 2001. Knowledge management and data mining for marketing. *Decision Support Systems*, 31: 127–137
86. Simon, D.G. and M.A. Hitt. 2003. Managing resources: linking unique resources, management, and wealth creation in family firms, *Entrepreneurship Theory and Practice*, 27: pp.339-58.
87. Srite, M. and Karahanna, E. 2006. The role of espoused national cultural values in technology acceptance. *MIS Quarterly*, 30(3), 679-704.



88. Stasser, G., and Titus, W. 1987. Effects of information load and percentage of shared information on the dissemination of unshared information during group discussion, *Journal of Personality and Social Psychology* (53:1), pp. 81–93.
89. Sten J. 2006. Transfer of family businesses to non- family buyers - the selling business family perspective, Doctoral Thesis, Publication of the Swedish School of Economics and Business Administration, Helsinki.
90. Susanto, A.B., Susanto, P., Wijanarko, H. and Mertosono, S. 2007. The Jakarta consulting group on family business, Jakarta : The Jakarta Consulting Group.
91. 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.
92. 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.
93. Thornhill A and Saunders MNK. 2003. Exploring employees' reactions to strategic change over time: The utilisation of an organisational justice perspective, *Irish Journal of Management*. 24.1, pp.66-86.
94. Van der Heyden, Ludo., Christine Blondel, and Randel S. Carlock. 2005. Fair process: striving for justice in family business, *Family Business Review*, Vol. XVIII, No.1, March.
95. von Krogh, G., K. Ichijo and Nonaka. 2000. Enabling knowledge creation. New York, Oxford University Press.
96. Wenig, R.G. 1996. What is knowledge management, The Knowledge Management Forum. <http://www.3-cities.com/~bonewman/what-is.htm>.
97. Yeh, Chi-Hung, Gwo-Guang Lee and Jung-Chi Pai. 2011. Influence of CIO'S knowledge sharing behavior on the quality of the IS/IT strategic planning (ISSP) process in Taiwan, *African Journal of Business Management*, Vol. 5 (6), pp. 2465-2474, 18 March.