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Knowledge Sharing as Communication: Exploring Academics' Communicative Disposition, Cognitive Dissonance, and Knowledge Sharing Attitude

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Acceptance Page

This dissertation titled **Knowledge Sharing as Communication: Exploring Academics' Communicative Disposition, Cognitive Dissonance, and Knowledge Sharing Attitude** is hereby accepted by the Faculty of Information and Communication Studies, U.P. Open University, in partial fulfillment of the requirements for the degree Doctor of Communication (DCOMM).

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Biographical Sketch

Melanie D. Bacuño was born in Daet, Camarines Norte, Philippines on 4 December 1982. She graduated from Camarines Norte State College (CNSC) Abaño Laboratory High School in March 1999 and from the University of the Philippines (UP) in Los Baños, Laguna with a Bachelor of Science in Development Communication degree major in Community Broadcasting in April 2003. During the following two years, she worked as a technical writer at the Camarines Norte Water District in Daet, Camarines Norte. In June 2005, she became part of the academe as a College Instructor at CNSC where she has taught English and Communication courses. At the same time, she held designations such as Applied Communication Officer of the College for two years relative to a technology transfer program in partnership with the Department of Science and Technology and the Bicol Consortium for Agriculture Resources Research and Development. In the following three years, she chaired the Gender and Development Office and co-authored a research study on gender mainstreaming in higher education that she presented in an international conference on gendered development intervention. While doing such functions, she pursued graduate studies and earned a Master in Management degree at the CNSC Graduate School in 2007 and a Master of Development Communication degree at UP Open University in 2010. As she serves her current position as Associate Professor and upon completing her Doctor of Communication degree at UP Open University as CHED K to 12 scholarship-grantee, she plans to continue her commitment in the communication profession as practiced in the academe. This June 2019 she is presenting her dissertation in the 27th Asian Media Information and Communication Center Conference (AMIC) at the Chulalongkorn University in Bangkok, Thailand.

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Dedicated to

Ryan

and

Nieyan and Zane

ABSTRACT

Knowledge sharing, which takes place in organizations within the education sector particularly in higher education because of its knowledge-intensive nature, can be viewed as a form of communication. Knowledge sharing of those who hold knowledge, particularly of research knowledge, can promote research productivity and outputs, which is a core function among the academics in higher education. In conceptualizing knowledge sharing as a communication phenomenon, it was found out that academics' communicative disposition and perceived importance of knowledge sharing are correlated. As their communication self-efficacy, perceived value of message, and anticipated reciprocal relationship increase, their perceived value of knowledge sharing increases. A subgroup of the academics was found to have contrasting cognitions about knowledge sharing, or an experience of cognitive dissonance, and it was further revealed that their age profile and perceived importance of knowledge sharing are strongly correlated. A correlation between the perceived importance of knowledge sharing and the academic's attitude towards knowledge sharing was also found. Through the lens of Cognitive Dissonance Theory, the experience of unpleasant state has driven them to reduce it as evident in their attitude towards knowledge sharing, and their communicative disposition possibly helped restore balance and harmony. A model was developed to represent the relationships among the variables. Decision-makers and research academics themselves can draw out insights that can frame discussions on communication and research plans, policies, and practices within the academia. Future communication studies could benefit by integrating the refinements in understanding context-specific knowledge sharing into their theoretical frameworks.

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Chapter One

INTRODUCTION

Background of the study

Sharing and openness, according to McNamara (2012) as cited by Santosh and Panda (2017), are in line with academic traditions. In fact, Cheng (2013) mentioned that "the idea of openness in education predates late 1910, where it was determined that education should be open." Education is, first and foremost, an enterprise of sharing, according to Wiley and Green (2012). If an instructor, as they exemplified, do not share what he or she knows with students, there is no education happening. In a similar vein, this study holds that if the academics, or the instructors and professors, share what they know to others, the individual knowledge will move up to group level and to other units in the institution. It will allow the maximum use of knowledge, which is an intellectual capital considered as a valuable resource in this knowledge-based organization.

Because research is a core function of the academics, research knowledge, which include but not limited to research idea, proposal, design, methodology, and result, is a valuable knowledge in higher education context. Ismail (2012) noted that if knowledge sharing, including the sharing of knowledge in research, is managed properly, it can greatly improve work-quality, decision-making skills, problem-solving efficiency and competency, a significant resource for competitive advantage and the key to enhancing innovation (Alavi & Leidner, 1999; Salisbury, 2003; Syed-Ikhsan & Rowland, 2004b; Yang 2007a; 2007b; Widen-Wulff & Suomi, 2007; Li, Roberts, Yan & Tan, 2014; Al-Husseini & Elbeltagi, 2015). Besides, nowadays as we are in the so-called knowledge-based economy, knowledge and innovation are widely

acknowledged as key drivers of growth and economic development (Asian Development Bank, 2014).

A review of 64 articles published from 2010 to 2015 on the possible antecedents and factors that facilitate or impede knowledge management and knowledge sharing in organizations by Asrar-ul-Haq & Anwar (2016) found out that communication has been studied as a knowledge sharing variable. Asrar-ul-Haq & Anwar explained that as an enabler of knowledge sharing and transfer, communication has been studied extensively in the last six years, and that it is still a valuable topic of debate among various researchers. Such that communication promotes voluntary knowledge-sharing behavior (Teng & Song, 2011), that communication increases the transfer of knowledge from one subsidiary to another (Miao, Choe, & Song, 2011), that communication is an important variable with respect to knowledge transfer in high turbulent environment, as well as in the context of cross-functional teams (Jones & Mahon, 2012; Ghobadi & D'Ambra, 2012), and that communication is closely linked with the workspace structure, as knowledge-sharing practices of employees rely on the proximity which subsequently affects the communication of the employees (Coradi, Heinzen, & Boutellier, 2015).

This study posited that knowledge, whether implicit or tacit, when shared, or simply knowledge sharing can be viewed as a form of communication. As a communication phenomenon, it is an individual activity that utilizes various means of communication and, in which, the interactions can be studied by analyzing the academics' communicative disposition vis-à-vis their attitude towards knowledge sharing. Ipe (2003) defines knowledge sharing as a process of presenting individual knowledge in form that can be used by others. In the context of the study, it may be via written or oral, which is accompanied with verbal and non-verbal cues and the

manner of presenting research knowledge conveys a particular writing or speaking style.

Furthermore, in sharing research knowledge the academics respond to questions, comments, and other kinds of feedback from the audience who may be a technical reviewer in a research journal publication, a participant or a fellow researcher/speaker in the same public presentation like a conference or seminar, a fellow faculty attending the same meeting, or a colleague he/she may be having informal conversation with as they walk in a hallway. The psychological mechanisms, states and, traits that each communicator in the situation carry can modify one's psychological predispositions while in the process of interaction.

Academics possess both tacit and implicit knowledge. Tacit knowledge, which was first presented by Polanyi (1966), can be thought-of as the know-how that is acquired through personal experience, according to Nonaka (1994). Ipe (2003) explained that it is therefore not easily codifiable and cannot be communicated or used without the individual who is the knower. He emphasized that tacitness of knowledge is a natural impediment to the successful sharing of knowledge between individuals in organizations. The tacit knowledge, which the academics have are linguistic competence or the knowledge as to how language is used to communicate a message like articulating a research idea, then there's the research knowledge or the knowledge in identifying a research problem and preparing a research plan, etc.

On the other hand, implicit knowledge can be easily codified, stored at a single location, and transferred across time and space independent of individuals (Lam, 2000 as cited by Ipe, 2003). The natural advantage of explicit knowledge over tacit knowledge, as Ipe (2003) pinpointed, is in terms of its ability to be shared relatively easily among individuals. The implicit knowledge that academics have are

esearch result presented in a manuscript or research report, then there's the nstitutional research policies and guidelines that are printed in the form of a booklet and disseminated through a memorandum, and so on. As individuals who hold valuable tacit and implicit knowledge, academics are regarded as experts. Consequently, they are in a position to persuade others to move to an action or to accept an idea or to change one's state of mind and it, essentially, produces a range of cognitive, emotional, and behavioral effects; hence, they can influence others.

Knowledge sharing as communication, then, is a process by which individuals express, interact, and influence others. As a communication phenomenon, it warrants an investigation on the academics as individuals and their psychological predisposition, and who are likely to experience cognitive dissonance, which can cause them to act in certain ways in a given communicative context.

The propensity to withhold research knowledge, despite the idea that education is sharing, creates among the academics a degree of dissonance, or the existence of non-fitting relations among cognitions according to Festinger (1957). The study assumes that communicative disposition influence how the academics value knowledge sharing, within which the attempt to explain cognitive dissonance is premised, and has relationship with the attitude towards knowledge sharing. The Cognitive Dissonance Theory (CDT) was used to explain the academics' attitude toward knowledge sharing with reference to the inconsistent thoughts about knowledge sharing

Through the CDT lens, academics will come up with favorable arguments for he importance of sharing knowledge in order to reduce the psychological tension esulting from the inconsistency of continuing to withhold research knowledge, while being aware of the idea that knowledge should be made available to others.

Cognitive dissonance, according to Festinger (1957), can be seen as an antecedent condition, which leads to activity oriented toward dissonance reduction just as hunger leads to activity oriented toward hunger reduction. In essence, the cognitive dissonance that the academics experience is a motivating factor in its own right, and according to Festinger "...a very different motivation...but...powerful."

Festinger elaborated that the magnitude of dissonance is an important variable in determining the pressure to reduce dissonance. It is necessary to distinguish degrees of dissonance and to specify what determines how strong a given dissonant relations is. One obvious determinant of dissonance lies in the characteristics of the elements between which the relation of dissonance holds. If two elements are dissonant with one another, the magnitude of the dissonance will be a function of the importance of the elements. Determining the weighted proportion of the relevant relation between the two clusters: stated in the study as "I uphold the belief that education is sharing" and expressed as "I tend to withhold research knowledge" was one of the aims of the study. The term "weighted proportion" is used because the relevant relation would be weighted according to the importance of the elements involved in that relation. Festinger explained the more these elements are important to, or valued by, the person, the greater will be the magnitude of a dissonant relation between them. He added that the magnitude of the dissonance (or consonance) increases as the importance or value of the elements increases.

This study explored the role of the self by describing the academics' individual communicative disposition and its relationship with attitude towards knowledge sharing. The perceived importance of knowledge sharing, where the investigation on cognitive dissonance experience was premised, was also studied in an attempt to concretize the motivational nature of cognitive dissonance in understanding attitude

change towards a communication phenomenon. In general, this examined the nature of relationships among individual communicative disposition, perceived importance of knowledge sharing and attitude towards knowledge sharing.

Statement of the problem

Context-specific knowledge, or the research knowledge, which the academics use to express, interact with and influence others, is the focus of this study; hence, sharing of research knowledge is viewed as a form of communication among the academics. The KS as Communication: ICD and KSA Questionnaire was developed and validated to study the relationships among individual communicative disposition, importance of knowledge sharing, and attitude towards knowledge sharing. A thorough look at how the academics define knowledge sharing as communication is situated under the discourse of understanding, which is a constructivist view. Meanwhile, predicting knowledge sharing attitude through an investigation on the relationships among individual communicative disposition, importance of knowledge sharing and attitude towards knowledge sharing is positioned under the discourse of representation, which is a positivist view. The research questions answered in the study can, therefore, be stated as follow:

1. How do the research academics define knowledge sharing as communication?
2. What is the research academics' regard on the importance of cognitions about knowledge sharing?
3. What is the nature of relationship between individual communicative disposition and the importance of knowledge sharing?

3.1 How is communication self-efficacy related to the importance of knowledge sharing?

3.2 How is perceived value of message related to the importance of knowledge sharing?

3.3 How is anticipated reciprocal relationship related to the importance of knowledge sharing?

4. What is the nature of relationship between the importance of knowledge sharing and attitude of academics towards knowledge sharing?
5. What model presentation will illustrate the individual communicative disposition-importance of knowledge sharing-knowledge sharing attitude relationship in the study of knowledge sharing as communication in the academic setting?

Objectives of the study

The general objective of this study is to contribute to the understanding of knowledge sharing as communication with respect to the relationships among individual communicative disposition, importance of knowledge sharing, and knowledge sharing attitude.

The specific objectives were the following:

1. To formulate a contextual definition of knowledge sharing as communication based on the experience of research academics;
2. To describe the academics' regard on the importance of knowledge sharing as premise in explaining cognitive dissonance;
3. To determine the nature of relationship between individual communicative disposition and the importance of knowledge sharing; and

4. To determine the nature of relationship between the importance of knowledge sharing and attitude towards knowledge sharing.
5. To develop a model of the individual communicative disposition-importance of knowledge sharing-knowledge sharing attitude relationship in the study of knowledge sharing as communication in the academic setting.

Hypotheses of the study

From the research questions developed and the objectives set for this study, the following statistical hypotheses were formulated in line with research questions 3 and 4:

H.3.1: Communication self-efficacy and the perceived importance of knowledge sharing are correlated.

H.3.2: Perceived value of message and the perceived importance of knowledge sharing are correlated.

H.3.3: Anticipated reciprocal relationship and the perceived importance of knowledge sharing are correlated.

H.4: The perceived importance of knowledge sharing and the attitude towards knowledge sharing are correlated.

Significance of the study

The knowledge-based nature of the academe makes knowledge sharing imperative because the students, the academics and the administrators are knowledge workers. In this context, knowledge sharing of those who hold knowledge, particularly of research knowledge can help promote research productivity and outputs. Also, aside from being a core function among the

academics, it is a critical driver to remain competitive in the current knowledge-based economy. Focusing on this context-specific knowledge is relevant because, as found by Sohail & Daud (2009), the nature of knowledge is a strong predictor of knowledge sharing behavior. In arguing that knowledge sharing is a form of communication, this studied the academics as individuals and their interaction and influences; then, it is logical to theorize on individual characteristic, i.e. individual communicative disposition, that causes them to act in a certain way while in a situation where sharing knowledge is presumed necessary.

Knowledge sharing being studied mostly in developed countries and little evidences of research on knowledge sharing in the education sector and a need for further investigation on the individual characteristics of knowledge sharer and receiver, based on the meta-review of Asrar-ul-Haq & Anwar (2016), reverberate the relevance of a study on the interplay of individual communicative disposition, importance of knowledge sharing, and knowledge sharing attitude among the academics in the Philippines as a developing country.

The present study, however, took a further step in thoroughly examining this theoretically and empirically. In arguing that knowledge sharing is a form of communication which can be studied on the individual level, it is reasonable to investigate the relations of individual cognitions as elements of dissonance and the latter's relations with an individual characteristic and on knowledge sharing attitude. While Leon Festinger's cognitive dissonance theory (CDT), according to (Hinojosa, A., et. al, 2017), has been frequently applied to management to explain and predict the motivational nature of dissonance in producing attitude and behavior change, CDT in this study was used to explain a communication phenomenon which contributes to understanding the motivational nature of the theory thereby expanding

its application to the field of communication and knowledge management, particularly in knowledge sharing.

Decision-makers and research academics themselves can draw out insights from the study that can frame discussions on knowledge management and organizational communication within the academia. Future communication studies, on the other hand, could benefit by integrating the refinements in understanding context-specific knowledge sharing into their theoretical frameworks.

Scope and limitation

The study looked into knowledge sharing among the teaching employees of Camarines Norte State College, Camarines Norte. The study considered the academics, regardless of the area of discipline, that were actively engaged in research from 2014-2018, and only 42 has this characteristic. The respondents were from the institution where the researcher is affiliated to ensure high retrieval rate of survey questionnaire.

For a meaningful understanding of how academics conceptualize knowledge sharing as communication, they were asked open-ended question eliciting constructivist stance to allow a contextualized process of constructing knowledge. This enabled the researcher to obtain qualitative data and do a thematic analysis of the academics' understanding of knowledge sharing as communication. In the attempt to describe the degree of dissonance experience of the academics, two contrasting cognitions were considered: "I uphold the belief that education is sharing" and "I tend to withhold research knowledge." With regard to individual communicative disposition, three dimensions were examined: communication self-efficacy, perceived value of message, and anticipated reciprocal relationship. These

dimensions are taken due to its pertinence when an individual expresses, interacts with, and influences others while sharing knowledge.

Despite the study's locale being a small college, but which enabled the researcher ease in data gathering because of close proximity to the respondents, a high response rate was obtained allowing the research to reach its aims. The limitations in a research are unavoidable; notwithstanding, the research endeavors to contribute to the body of knowledge in knowledge management particularly knowledge sharing in the academe, organizational communication, and cognitive dissonance.

Operational definition of terminologies

Terms used in this study can be defined operationally, as follow:

Academics – teachers in an institution of higher education who perform not only instruction, but also research functions actively

Knowledge – context-specifically, it is knowledge on research, which covers the following, but not limited to research idea development, research proposal packaging, research design and methodology selection, and research result writing and presentation; regarded as messages communicated by the academics

Knowledge sharing – an individual activity of exchanging research knowledge through oral or written means among the members of the academic community and to others; it is characterized by an individual communicative disposition

Communicative disposition – or individual communicative disposition taken as a psychological predisposition; aspects of an individual's tendency to act in a

communication situation such as communication self-efficacy, perceived value of message, and anticipated reciprocal relationship

Communication Self-Efficacy – or CSE, confidence level in one's ability to share research knowledge; as an aspect of individual communicative disposition, it determines one's decision to share knowledge

Perceived Value of Message – or PVM, the worth an individual assigns to his or her own message while in the act of sharing knowledge; the usefulness of knowledge is the dimension of the perceived value of message that was studied.

Anticipated Reciprocal Relationship – or ARR, the academics' desires to maintain ongoing relationships with others, specifically with regard to knowledge provision and reception; several studies confirm its influence in attitude towards knowledge sharing

Cognitive dissonance – a psychological tension experienced by the academics resulting from inconsistency in the cognitions about knowledge sharing, that is to share or not to share knowledge; the result on the importance of knowledge sharing was used to explore the motivational nature of cognitive dissonance to understand the association between individual communicative disposition and knowledge sharing attitude in an academic context

Knowledge sharing attitude – a psychological variable that pertains to the way the academics think and feel about knowledge sharing, it can be reflected in one's behavior; relationships among individual communicative disposition, importance of knowledge sharing, and knowledge sharing attitude were tested in the study

Chapter Two

REVIEW OF THE RELATED LITERATURE

Literatures that were reviewed to develop a profound understanding of the study variables centered on the following themes: knowledge sharing in HEIs, communicative disposition, and cognitive dissonance. Each discussion developed from ideas drawn out from various sources like books to journals and magazines, and theses and dissertations from printed materials and online resources.

Knowledge sharing in HEIs

Research on knowledge sharing among the academics in higher education is very limited compared with that in the commercial sector (Alkurdi, et al., 2018; Ismail, et al., 2013; Fullwood et al., 2013; Kim and Ju, 2008; Nordin et al., 2012; Sohail and Daud, 2009). Research is an essential function of higher education institutions (HEIs); however, studies on sharing research knowledge are even scarcer. As a knowledge intensive sector, education institutions need to develop initiatives to cultivate a strong knowledge sharing culture in order to achieve better research productivity. A review of studies on knowledge sharing in HEIs is an important step in creating a deeper understanding of its underlying factors. A number of researches found were conducted mostly in Asia, and only a few were from Europe and Africa.

In the study of Ismail, et al. (2013), they were able to draw out from a higher education institution in United Kingdom six core drivers that positively induce researchers in research knowledge sharing and 11 factors that weaken them from sharing their research knowledge. Among core drivers are: for fulfilling academic requirements, for self-interest, for research productivity, for establishing oneself as a researcher, for fulfilling university requirements, and for career development. Then,

the factors that weaken them from sharing research knowledge relate to: support from research-leader and senior researchers, power in terms of research area, interest to share with certain group of people only, confidence towards own research area and project, motivation to share, trust on other researchers and research leaders, and interest in the existing research area and project, and time.

A number of researches pertaining to predictors of knowledge sharing in HEIs in various countries in Asia and one in Africa and another in Europe were found. For example, an examination of knowledge sharing behavior among academics in a private university in Malaysia found that two key influential factors inhibit academics to share knowledge: incentives systems and personal expectation (Cheng, et al., 2009). A relevant argument raised by Cheng, et al. is the prevalence of knowledge hoarding than knowledge sharing in academia, due to non-exclusivity and non-rivalry nature of knowledge as public goods. A study in a business school in India also reported the issue of knowledge hoarding, wherein the culture of knowledge sharing is missing, as most of the activities are individualistic, limited to peer group, and interactions with external experts are limited to personal acquaintance (Basu & Sengupta, 2007).

Furthermore, a study in a tertiary education institution in Singapore found that rewards and incentives, open-mindedness of the sharer, and the cost benefits concerns of knowledge hoarding are greatest predictors of knowledge sharing behavior (Wah, et al., 2007). Then a cross-sectional survey examining knowledge sharing behavior among teaching staff in business and management schools in Malaysia revealed that the nature of knowledge and working culture are strongest predictors of knowledge sharing behavior (Sohail & Daud, 2009).

Focused on the impact of knowledge management factors in encouraging knowledge sharing among academics in five universities in Malaysia, Tan (2016) revealed in her study through a survey that members' knowledge sharing is influenced by trust, organizational rewards, organizational culture, knowledge management system quality, openness in communication and face-to-face interactive communication; whereas research collaboration is strongly influenced by knowledge sharing.

On the other hand, Alhawary's (2017) survey on the determinant factors of knowledge sharing among academic staff in the Jordanian universities concluded that individual, organizational and technological factors pose challenge in knowledge sharing; wherein enjoyment in helping others, knowledge self-efficacy and ICT have the most positive effect.

Meanwhile, in their examination of the attitude, perceptions and motivation towards knowledge sharing among faculty members in the universities in Kwara State, Nigeria, Bello and Oyekunle (2014) learned that attitude is significantly associated with intention to share knowledge; intention is significantly associated with knowledge sharing behavior; and intrinsic motivation is significantly associated with knowledge sharing behavior.

An interesting finding regarding teaching experience as a predictor for knowledge sharing is worth citing. It was found that young teaching staff in government and private universities in Iran (i.e. less than five years experience) and senior teaching staff (i.e. more than 20 years experience) share their knowledge more often compared to those with 5 to 20 years (Fahimeh & Kermani, 2011); contradicting the findings that instructors in public and private colleges and

universities in Taiwan with more than 10 years experience were those who less share their knowledge (Lou, et al, 2007).

One study explored the contextual relationship of variables in knowledge sharing, particularly identifying the main group of knowledge sharing barriers in Polish universities and verifying any specific cultural elements that create those barriers through in-depth interviews. Chmielecki (2013) found out one of the most important barriers in knowledge sharing among staff is the low level of mutual trust because of factors related to culture, which is the general lack of trust in Polish culture; and a highly competitive work place, which make the staff afraid to share knowledge because of the fear of losing resources and power.

Because no attempt yet is made to create a theory of knowledge sharing, Lee, et al., (2004) developed a theory for voluntary, informal, knowledge sharing or VIKS in an academic setting using the grounded theory methodology. Lee explained that VIKS is a specific type of knowledge sharing with the elements of serendipity (it occurs without pre-planning), spontaneity (participation occurs out of one's own free will), and extemporaneousness (participation is off the cuff, without any prior preparation). Results show that VIKS is perceived by the academics in Singapore as risk taking, an opportunity for learning and teaching, a social interaction, and an opportunity to fulfill ones calling. Trust, the availability of time, the *kiasu* trait, and the Asian culture are identified as important factors.

Only one particular study, which regarded knowledge sharing as communication in an academic setting in the Philippines, was found. Borras' (2016) main argument is that knowledge sharing can be viewed, conceptualized and investigated as a special kind of communication that exists in the academic setting – a similar argument that the current study holds. In examining empirically the

relationships between communication practice and knowledge sharing practice, Borras found out that horizontal supportive communication and upward supportive communication were predictors of knowledge sharing. The results show that knowledge sharing is seen as a social relational process through which respondents working in the academic setting engaged in communication to achieve that purpose.

Communicative disposition

Disposition is defined as a quality of character, a habit, a preparation, a state of readiness, or a tendency to act in a specified way that may be learned. In Bourdieu's theory of fields, dispositions are natural tendencies of each individual to take on a specific position in any field (Wikipedia, 2018). It is a person's inherent qualities of mind and character (Dictionary.com, 2018). In communication, an individual's disposition determines how well one communicates, or shares knowledge as in the context of this research study. The individual predispositions in communication can be either positive or negative depending on the attitudes and personalities of that individual. According to Rusell (2015), it is also related to our inclination to communicate, such that the more apprehensive we are and the lower our willingness to communicate, the less we are likely to communicate with others. Three elements of individual communicative disposition are relevant as to how the academics express, interact with, and influence others and these were considered in this research: communication self-efficacy, perceived value of message, and anticipated reciprocal relationship.

Communication self-efficacy

Self-efficacy is an individual's belief in his or her innate ability to achieve goals. Albert Bandura (1982) defines it as a personal judgment of "how well one can execute courses of action required in dealing with prospective situations". As applied in this study, communication self-efficacy is the confidence level of the academics in their ability to communicate research knowledge, which in turn augments the confidence level of knowledge receiver as well (Chih-Jou Chen & Shiu-Wan Hung, 2010). Knowledge sharing self-efficacy, or communication self-efficacy (CSE) as used in this study, determines ones decision to share knowledge.

A recent study found that self-efficacy has a substantial effect on attitude on knowledge sharing (Shahzadi, Hameed & Kashif, 2015). Other studies found that self-efficacy could help motivate employees to share knowledge with colleagues (Wasko and Faraj, 2005); that employees with high confidence in their ability to provide valuable knowledge are more likely to accomplish specific tasks (Constant et al., 1994); and that knowledge self-efficacy typically manifests in people believing that their knowledge can help to solve job-related problems and improve work efficacy (Stajkovic & Luthans, 2003). These are all consistent with the previous findings that self-efficacy is an important element of knowledge sharing behavior (Tamjidyamcholo, Baba, Tamjid and Gholipour, 2013; Kankanhalli et al., 2005; Bock et al., 2005).

Essentially, as the academics believe they can contribute to research productivity and outputs by communicating research knowledge, they will develop greater willingness to contribute and share research knowledge.

Perceived value of message

As an aspect of the individual communicative disposition, perceived value of message or PVM refers to the worth an individual assigns to his or her own message while in the act of sharing knowledge. The message actually refers to research knowledge covering but not limited to research idea, proposal, design, methodology, and result. PVM emanated from the term perceived value of knowledge (PVK), a new concept in the field of knowledge management introduced by Ford and Staples (2006). PVM is defined as the worth an individual assigns to his or her own knowledge. Ford and Staples found that PVK is directly related to the intention of knowledge sharing when the sharer does not lose, partially or totally, the value of a particular knowledge sharing it. Castañeda's (2015) findings support the study of Ford and Staples that PVK influences the intention to share knowledge. PVK implies high communication and low protection of knowledge (Ford and Staples, 2006).

Usefulness of the knowledge is one dimension of the perceived value of knowledge. According to Ford and Staples, the more relevant and useful the knowledge is for the individual's work tasks, the more valued the knowledge is. This study focused on the usefulness of knowledge, or of message while in the act of sharing knowledge, as an aspect of PVM in knowledge sharing in the academia.

Anticipated reciprocal relationship

According to Bock, et al., (2005), anticipated reciprocal relationship (ARR) captures employees' desires to maintain ongoing relationships with others, specifically with regard to knowledge provision and reception. Employees who believe their mutual relationships with others can improve through their knowledge sharing, and who are operating on the basis of their desire for fairness and

reciprocity (Huber, 2001), are likely to have positive attitudes toward knowledge sharing (Bock, et al.).

Several authors like Constant et al. (1994) and many other others (Blau, 1967; Organ and Konovsky, 1989) argue that when two individuals are influenced by their social and organizational contexts, especially where knowledge is exchanged, the social exchange relationship is a major determinant of their attitudes. Social exchange, distinct from economic exchange, establishes bonds of friendship with and/or superordination over others (Organ and Konovsky, 1989). Some studies found that an individual's contribution will result in reciprocal returns, such that it was found to influence attitude towards knowledge sharing (Chennamaneni, et al. 2012, Bock, et al., 2005), as a salient motivator for individuals' willingness to share information (Kolekofski and Heminger, 2003), contribute knowledge to the discretionary databases, electronic knowledge repositories and to engage in knowledge sharing activities in virtual communities (Chiu, etal., 2006, Kuznetsov, 2006).

Similarly, when the academics have confidence in their mutual relationships with others, which can be improved as they engage in knowledge sharing activities, chances are they are inclined to have favorable attitude towards knowledge sharing.

Cognitive dissonance

A "cognition" or "cognitive element" is any bit of knowledge that a person has about one self or the environment. Cognitions about the self would include components like knowledge of one's weight, awareness of hunger, and the intention to share knowledge to others. Cognitions about the environment would perhaps include knowledge of the distance between Camarines Norte State College and

University of the Philippines Open University, knowing which candidate for political office is a Democrat, and the knowledge that education is sharing wherein knowledge should be made available to others. The relationship between two cognitive elements is consonant if one implies the other in some psychological sense. If having cognition A implies having cognition B, a dissonant relationship exists when the person has cognition A and the obverse or opposite of B. Then, when cognitions that a person has will be neither consonant nor dissonant, that is, these cognitions will have nothing to do with one another, such cognitions are irrelevant (Wicklund & Brehm, 2013).

The magnitude of dissonance with regard to the most resistant element is a direct function of the proportion of relevant elements that is dissonant with it. The magnitude of dissonance is increased with regard to the most highly resistant cognition as the number of dissonant cognitions increases; the magnitude of dissonance with regard to that cognition decreases as the number of consonant cognitions increases. A consonant or dissonant cognition is weighted for its importance to the individual. As mentioned earlier in this paper about Cognitive Dissonance Theory, Festinger explained the more these elements are important to, or valued by, the person, the greater will be the magnitude of a dissonant relation between them. He further said that the magnitude of the dissonance (or consonance) increases as the importance or value of the elements increases.

The study assumes that cognitive dissonance experience among academics is uncomfortable that it motivates them to change behavior or attitudes, which ever is easier to change, to reduce the dissonance or the psychological tension.

One related study about knowledge sharing behavior and cognitive dissonance was found, but the locale is not an educational institution rather a

pharmaceutical company with employees in North America, Europe and Asia. Mancini & Ribiere (2018) concluded that employees who address cognitive conflict with more assertive strategies contribute more to positive knowledge sharing behavior, whether the organizational climate encourages it or not.

Synthesis

Knowledge sharing is widely practiced among higher education institutions in various countries worldwide. Previous studies, as observed from the reviewed researches, focused on the predictors of knowledge sharing behavior, which can be categorized as individual, organizational, and technical. In the individual level, the following factors emerged as influential: personal expectation, open-mindedness of the sharer, teaching experiences, mutual trust, time, openness in communication, enjoyment in helping others, and knowledge self-efficacy. In the organizational level, two common factors facilitate the knowledge sharing behavior of faculty: incentives systems and working culture. In the technical level, ICT influence the knowledge sharing behavior of academics. Most studies determined these by employing quantitative approach to research.

Communication is often studied as a variable in knowledge sharing or knowledge management. What the previous studies failed to uncover is the conceptualization of knowledge sharing as a form of communication, in which as a communication phenomenon, academics are likely to experience cognitive dissonance, i.e. to share or not to share knowledge. The Cognitive Dissonance Theory serves as the theoretical underpinning of the study because the academics are likely to experience a psychological tension resulting from the cognitions about openness in education and keeping research knowledge to oneself. The study,

therefore, intended to make new contribution and extend the literature on the motivational nature of cognitive dissonance in producing attitude change through a communication lens.

Several studies confirm the effects of self-efficacy, perceived value of knowledge, and anticipated reciprocal relationship to knowledge sharing attitude; however, they were not taken as aspects of individual communicative disposition. These three were considered in the study, but their constructs were framed within the communication lens. A causal explanation on the effect of communicative disposition on the individual's decision to share or not to share knowledge, with cognitive dissonance as motivating factor to knowledge sharing attitude appears uncharted as of this time and resonates a gap in the existing literature that needs to be addressed.

Chapter Three

FRAMEWORK OF THE STUDY

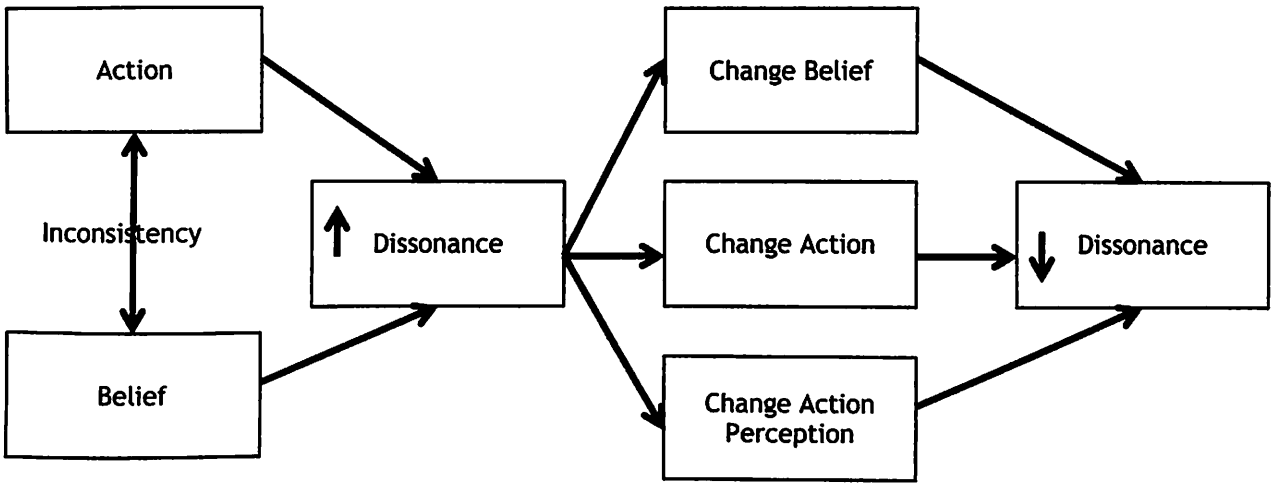
In this chapter the theory used and how previous researchers study it is presented in a theoretical framework.

Cognitive dissonance theory

Cognitive Dissonance Theory (CDT), which was originally formulated by Leon Festinger, provides the theoretical underpinning for this study. CDT and research has dominated social psychology from the 1950s to 1970s. It revolutionized thinking about psychological processes and in recent years, there has been renewed interest in this theory (e.g., Beauvois & Joule, 1996; Harmon-Jones & Mills, 1999 as cited by Harmon-Jones and Harmon- Jones, 2007) and the theory has implicitly influenced much contemporary theorizing (Aronson, 1992 as cited by Harmon-Jones and Harmon-Jones, 2007).

In a review on research and theoretical developments on the theory of cognitive dissonance by Harmon-Jones & Harmon-Jones (2007), it was revealed that several studies were undertaken to challenge the more than 50-year old theory through self-consistency, self-affirmation, and aversive consequences revisions and they provided support for Festinger's original view about dissonance. The studies affirmed based on an action-based model of dissonance that dissonance has much to do with inconsistency; basically it accepts the original theory's proposal that a sufficient cognitive inconsistency causes dissonance. This dissonance results to a change in belief, or a change in action, or a change in action perception in order to reduce dissonance and restore balance, as illustrated in Figure 1.

Figure 1. Cognitive dissonance theory

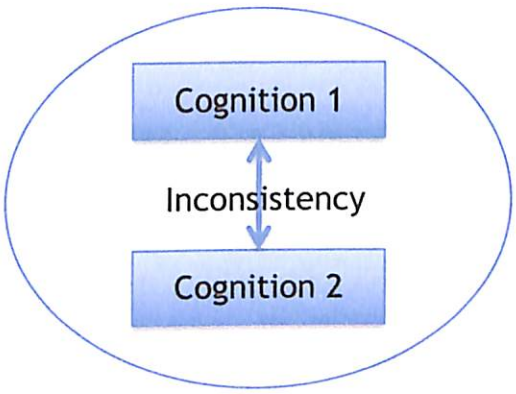


Wicklaund and Brehm's (2013) representation of cognitive dissonance can be applied in this study; for example, a faculty withholds research knowledge despite knowing the belief that "education is sharing". Assume that the cognition about "education is sharing" is the most resistant element. The magnitude of dissonance that the faculty experiences from this dissonant relationship is an inverse function of the number of cognitions that are consonant with the knowledge that "education is sharing." If the faculty upholds the belief that "education is sharing" because of the idea of knowledge as a public good and because of the idea of providing learning resources freely and openly, then these consonant cognitions in addition to the dissonant one will add up to only negligible dissonance. However, if the only reason the faculty had for believing that "education is sharing" was the idea of knowledge as a public good, then the consonant cognitions do not clearly outweigh the dissonant, and the magnitude of dissonance experienced is relatively great.

Cognitive dissonance can be depicted in Figure 2, wherein when a faculty member, or a research academics holds two or more equally valued cognitions (Cognition 1 and Cognition 2) that are contradictory or are inconsistent, he/she will

feel an unpleasant state or a psychological tension, which is called dissonance, until they he/she is able to resolve this state by altering the cognitions (Festinger, 1957).

Figure 2. Cognitive dissonance



According to van Veen, Krug, Schooler, & Carter (2009), the discomfort of cognitive dissonance is experienced as pain, showing up in a part of the brain that is particularly sensitive to pain—the anterior cingulate cortex. In experiencing cognitive dissonance, or having conflicting belief and behavior about knowledge sharing, this discomfort is produced that leads to a change in either the belief or the behavior to reduce the discomfort and restore balance. This supports Festinger's claim that cognitive dissonance serves as a motivating factor because of its expected effect on the attitude of the academics towards knowledge sharing. The individual characteristic which is the communicative disposition was then considered by way of describing its relationship with the perceived importance of knowledge sharing, where the findings on academics' inconsistent thoughts was explored, in light of establishing the latter's effect on attitude change.

A recent article by Hinojosa, et al. (2017) on a review of cognitive dissonance theory in management research highlighted that of particular interest to CDT scholars and a source of variation in CDT approaches in the link between counterattitudinal behaviors and attitude change. A counterattitudinal behavior is a

behavior that conflicts with an individual's attitude regarding that behavior. It is also known as forced compliance because CDT scholars, according to Hinojosa, et al, often test dissonance by requiring subjects to engage in counterattitudinal behavior. It can cause individuals to experience dissonance and reduce this dissonance by changing their attitude towards the behavior. Effort and behavioral commitment can lead to dissonance as individuals invest more energy into a decision or action; thus, the amount of effort invested magnifies the amount of discrepancy reduction. This effect is known as effort justification, which was first documented by Aronson and Mill's (1959) study that found out that the severity of initiation processes positively predicted organizational commitment.

Free choice is another topic examined in CDT research. According to Brehm & Cohen (1962), when individuals must make a choice between alternatives, they experience dissonance due to recognition that they must not choose the ideal option and their desire to choose the best alternative conflicts with the realization that they may not do so. Responsibility for choice, the belief that one has personal responsibility for the choice selected, leads to greater discrepancy reduction in response to dissonance. Bobocel & Meyer (1994; as cited by Hinojosa, et al., 2017) explained that the responsibility for choice increases dissonance when individuals are faced with information that suggests they have made a poor choice.

Hinojosa, et al. (2017) noted that when people must make a difficult choice between similar alternatives, they reduce choice-induced dissonance by spreading the alternatives. When individuals have a preferred alternative, but a choice has not bee made, CDT predicts they will engage in selective information processing in an attempt to support the favored option (Russo, Medvec, & Melov, 1996, as cited by Hinojosa, et al., 2017).

Still, it has to be noted that the delineation of ways in which dissonance can be reduced does not indicate what a person who is experiencing dissonance will actually do. CDT, according to Wicklund & Brehm (1976), does not assert that a person will be successful in reducing dissonance, but rather that the existence of dissonance will motivate a person to attempt to reduce it.

Using CDT as a theoretical framework of this study is appropriate because (1) cognitive dissonance is a theory in social psychology with wide implications and a variety of practical applications including in the field of communication and knowledge management; (2) the theory of cognitive dissonance is a flexible theoretical framework that can incorporate different principles to better explain aspects of the academics' attitude towards knowledge sharing as communication; and (3) the cognitive dissonance theory enabled hypothesizing on the relationship between and among individual communicative disposition, perceived importance of knowledge sharing, and attitude towards knowledge sharing.

Clearly, the present study attempted to expand the understanding of cognitive dissonance theory through its application in a communication phenomenon.

Chapter Four

METHODOLOGY

This chapter describes the study's research methodology and includes discussion around the following areas: the research design, variables of the study, respondents of the study, sampling procedure, the research instrument, and procedure for data collection and analysis.

The research design

This research explored the existing condition with regard to knowledge sharing among the academics and the relationships among individual communicative disposition, importance of knowledge sharing, and knowledge sharing attitude. Aligned with the positivist paradigm that assumes an objective reality, an empirical investigation on the relationships among these variables was done by developing and testing a set of hypotheses. To obtain quantitative data, the study employed survey research design with the purpose of generalizing from a sample of academics from the population of all academics in a state-run higher education institution in order to make inferences about a characteristic like the individual communicative disposition and an attitude like the knowledge sharing attitude. The use of survey design is advantageous due to the economy of the design and quick completion of data collection. The survey, which was administered personally, was cross-sectional because data were collected at one point in time.

In particular, correlation analyses were performed to determine the strength of relationships between each aspect of individual communicative disposition and the importance of knowledge sharing, then between the importance of knowledge sharing and attitude towards knowledge sharing. Tests of significance of

relationships were also done to see if the relationships between the variables are likely caused by something other than chance.

Variables of the study

Individual communicative disposition, with an assumed manifestation in one's communication self-efficacy, perceived value of message, and anticipated reciprocal relationship, was the independent variable in this study. On the other hand, knowledge sharing attitude, or how they think and feel about knowledge sharing was the dependent variable. But one's tendency to communicate, or to share knowledge, does not just lead to a kind of attitude towards knowledge sharing; in such manner, the importance of knowledge sharing, where the explanation on cognitive dissonance was premised, was taken as another variable because of its motivational nature surmised to link individual communicative disposition and knowledge sharing attitude.

Statistical hypotheses of the study

Four statistical hypotheses were tested in this study.

H.3.1: There is no relationship between communication self-efficacy and the perceived importance of knowledge sharing.

H.3.2: There is no relationship between perceived value of message and the perceived importance of knowledge sharing.

H.3.3: There is no relationship between anticipated reciprocal relationship and the perceived importance of knowledge sharing.

H.4: There is no relationship between the perceived importance of knowledge sharing and the attitude towards knowledge sharing.

Respondents of the study

Teaching personnel of Camarines Norte State College, a state-run institution of higher education in the Philippines, who actively perform not only instruction, but also research functions were the respondents of the study.

Sampling procedure

A population, or all the participants were selected because they represent a characteristic that the researcher seeks to study. This characteristic is research experience, which covers from research proposal preparation to research output presentation of academics who have research output from 2014 to 2018 and who are working full-time in the college for the school year 2018-2019. The time frame was defined based on the year when the research arm of the subject institution became fully institutionalized. Because the size of the population that has this characteristic is small - just 42 out of 371 academics, and the characteristic shared by this population is considered uncommon - academics with active engagement in research, as this tends to explain why the population that can be studied is very small, all of them were taken as respondents.

The respondent's list was created by first defining the population characteristic, next is forming a list of the population, and then contacting all members on the list. In forming the list of the population, the Director for Research Services served as the gatekeeper to ensure that the researcher had access to the list of 42 academics with the required characteristic. Then, in order to protect the privacy and confidentiality of participants in the study, an informed consent was obtained.

The research instrument

An instrument in the form of a questionnaire called KS as Communication: ICD and KSA Questionnaire was developed for this study. It is a modified instrument based from existing and previously validated instruments in which some changes were done to make it fit with the research study requirements.

The research instrument underwent two stages of validation: expert panel and field survey. Selected experts who are familiar with the constructs being measured reviewed the questionnaire. In particular, two licensed psychometricians and one Psychology professor were consulted about the cognition constructs to ensure the validity of measure on the importance of knowledge sharing because data from here provide the basis in inferring explanations on cognitive dissonance. The content experts rated the item relevance to obtain the Content Validity Index (CVI) at the item level. In this method, a panel of content experts, a minimum of three but more than 10 was probably necessary according to Lynn (1986), will give their item ratings typically on a 4-point ordinal scale (1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant) to avoid having a neutral and ambivalent midpoint. Then, for each item, the I-CVI is computed as the number of experts giving a rating of either 3 or 4, divided by the total number of experts. Lynn recommended that with a panel of "five or fewer experts, all must agree on the content validity for their rating to be considered a reasonable representation of the universe of possible ratings." In other words, the I-CVI should be 1.00 when there are five or fewer judges, Lynn explained. In computing the I-CVI of the items in the constructs for dissonant cognitions, communicative disposition and knowledge sharing attitude, an I-CVI rating of 1.00 for each construct was obtained indicating an agreement among the experts on the validity of the contents of the ICD and KSA in the questionnaire. A

pilot testing of the questionnaire among some academics, or 10 percent of the total respondents and who were excluded from the final sample of the study, was also done. After they have completed and evaluated the instrument, their feedback was analyzed and decisions were made about the effectiveness of each question. Revision on the instrument was done before sending it out to the respondents.

The questionnaire was divided into five parts. The first part sought to obtain a constructivist view on how the respondents state the meaning of knowledge sharing as communication based on actual research practices. The qualitative data was used to develop a meaningful explanation on the relationships of variables under study. The second to fifth parts aimed at deriving positivist view and getting quantitative data. Specifically in Part II Importance of Knowledge Sharing (IKS), there were two major constructs suggesting one's thought to share and not to share knowledge: "I uphold the belief that 'education is sharing' because of factors like..." with four items developed based on the work of Panda & Santosh (2017) on faculty perception of openness and attitude to open sharing; and "I tend to withhold research knowledge because of" with four items was developed based on the studies by various authors such as Ismail, Xu, Wood & Welch, (2013), Lee, Foo, Chaudhry & Hawamdeh (2004), Chmielecki (2013), Tan (2016), Cheng, Ho, & Lau (2009), Wah, Menkhoff, Loh & Evers (2007, and Sohail & Daud (2009) on knowledge sharing in higher education. The respondents were asked to rate the items for each of the two cognitions based on a 7-point Likert-type scale with options ranging from 1 'Not at all important' to 7 'Extremely important.'

In Part III Individual Communicative Disposition (ICD) – Communication Self-Efficacy (CSE), the four items were developed based on the work of Tan (2016) on enhancing knowledge sharing and research collaboration among academics;

Individual Communicative Disposition – Perceived Value of Message (PVM), the four items were developed based on the work of Ford and Staples (2005), who originally introduced perceived value of knowledge or PVK where PVM was derived; and Individual Communicative Disposition – Anticipated Reciprocal Relationship (ARR), in which the four items were also developed based on the work of Tan (2016). In Part IV Knowledge Sharing Attitude (KSA) with eight items was also developed based on the work of Panda & Santosh (2017). The respondents were asked to rate the items for each construct about individual communicative disposition based on a 7-point Likert-type scale with options ranging from 1 'Strongly disagree' to 7 'Strongly agree.'

In Part V General Demographic Information, respondents were asked to put a check a mark on the item that describes their age, years in service, academic rank and highest degree attained.

Procedure for data collection

Permission from the institutional head, the College President, was obtained before the start of the study. Then, an Informed Consent Form was developed specifically for the respondents of the study. This form is a statement that respondents sign before they participate in research. It states that the researcher guarantees them of certain rights and that signing the form means they agree to be involved in the study and acknowledge the protection of their rights. This was done as an ethical gesture of protecting the privacy and confidentiality of the participants in the study. Next, the survey questionnaires were personally handed over to the respondents. Accomplished questionnaires were also personally retrieved. Finally, the responses were collated and organized in tabular form for analysis.

Procedure for data analysis

The responses on how the academics define knowledge sharing as communication was subjected to a thematic analysis. Codes were first derived from the qualitative data gathered, and then themes that emerged were organized in tabular form.

Items in the perceived value of knowledge sharing were subjected to a descriptive statistical analysis of its relative importance through weighted mean. Then, correlation analysis was done to determine the strength of relationship between ICD and IKS. Scatter plot was applied to have initial information regarding the possible linear relationship between the components of the ICD in terms of CSE, PVM and ARR against IKS. A scatter plot is a two-dimensional data visualization that uses dots to represent the values obtained for two different variables - one plotted along the x-axis and the other plotted along the y-axis (from https://chartio.com/learn/dashboards-and-charts/what-is-a-scatter-plot/, 02/27/2019). Scatterplots use a collection of points placed using Cartesian Coordinates to display values from two variables. By displaying a variable in each axis, one can detect if a relationship or correlation between the two variables exists. Various types of correlation can be interpreted through the patterns displayed on scatterplots. These are: positive (values increase together), negative (one value decreases as the other increases), null (no correlation), linear, exponential and U-shaped. The strength of the correlation can be determined by how closely packed the points are to each other on the graph (from https://datavizcatalogue.com/methods/scatterplot.html, 02/27/2019).

Pearson's Correlation Coefficient ρ with two-tailed tests of significance were individually computed for each case, that is, CSE and IKS, PVM and IKS, and ARR

and IKS. The strength of relationship was determined by the computed Pearson's Correlation Coefficient ρ with its corresponding interpretation for each case. The same procedure was applied to determine correlation between IKS and KSA. Computing for the p-value, the statistical significance of the relationships was also determined. Pearson Correlation Coefficient is a measure of the strength of a linear association between two variables and is denoted by *r*. It attempts to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient *r*, indicates how far away all these data points are to this line of best fit (from https://statistics.laerd.com/statistical-guides/pearson-correlation-coefficient-statistical-guide.php. 02/27/2019).

Frequency and percentage were obtained to describe the demographic profile of the participants. Data was then organized in tabular form.

Specific to the findings on importance of knowledge sharing where explanation on cognitive dissonance was premised, a further investigation was needed so the Spearman's Correlation Analysis was performed to determine the nature of relationship between the IKS and the profile of respondents. The Spearman Rank-Order Correlation is the non-parametric version of the Pearson Correlation. The Spearman correlation coefficient, *ρ*, measures the strength and direction of association between two ranked variables. (from https://statistics.laerd.com/statistical-guides/spearmans-rank-order-correlation-statistical-guide.php, 02/27/2019).

The computer software Simplified Statistics for Researchers developed by Bermundo (2007) was used in computing for the Pearson's Correlation Coefficient and Spearman's Correlation Coefficient.

Chapter Five

RESULTS AND DISCUSSION

This study aimed to contribute understanding of knowledge sharing as a form of communication and expand the application of cognitive dissonance theory in the assumption that individual communicative disposition, importance of knowledge sharing and knowledge sharing attitude are associated. All teaching personnel in a state-run higher education institution with active involvement in research served as the respondents. The demographic profile of the respondents is presented below. It is followed by a thematic analysis of the respondents' definition of knowledge sharing as communication. Analysis of each variable and their relationships through descriptive statistics follow.

Respondents' demographic profile

Of the 42 survey questionnaires distributed, 39 or 93% of the respondents returned accomplished questionnaires. Table 2 shows that the most number of respondents are in their senior age of 51 to 60 (31%), followed by middle age groups of 31 to 40 (26%) and 41 to 50 (11%), then young age group of 30 and below (10%), and with the least number (5%) is the group who are more than 60 years old.

Personnel with 11 to 20 years were the highest in number of years in service with 14 (36%), followed by 12 (31%) of those with 5 to 10 years. There are 6 (15%) who have been in service for 21 to 30 years, 5 (13%) for less than 5 years, and only 2 (5%) for more than 30 years.

In terms of academic rank, 14 (36%) or the most number are Instructors, while 13 (33%) are Assistant Professors, 8 (21%) are Associate Professors, and only 4 (10%) are Professors. When it comes to educational background, 22 or more than

half (56%) have Master's degree, 15 (38%) have Doctorate degree, and only 2 (5%) have Bachelor's degree.

Table 1. Demographic profile of teaching personnel-respondents

	N=39	%
Age		
> 60	2	5
51 to 60	12	31
41 to 50	11	28
31 to 40	10	26
30 and below	4	10
Years in Service		
> 30	2	5
21 to 30	6	15
11 to 20	14	36
5 to 10	12	31
< 5	5	13
Academic Rank		
Professor	4	10
Associate Professor	8	21
Assistant Professor	13	33
Instructor	14	36
Highest Degree Attained		
Doctorate	15	38
Master's	22	56
Bachelor's	2	5

Middle to senior age groups of academics in the subject school engage in research and in knowledge sharing. While they are connected with the institution for a relative time, their academic rank is at entry level, which can possibly be explained by the level of educational attainment.

Meaning of knowledge sharing as communication

Research Question 1: How do the research academics define knowledge sharing as communication?

This question was answered by doing a thematic analysis of qualitative data obtained based on their response to this open-ended question:

Based on actual research practices, please write down your ideas in connection with what knowledge sharing as communication means to you.

A total of 43 codes were derived, wherein seven broad themes emerged, as shown in Table 2. These themes are: view of knowledge sharing as an act of imparting information and the representation of shared beliefs and experiences, forms and labels of knowledge shared, communication channels/methods/strategies used in knowledge sharing, why individuals and groups share knowledge, how organizations benefit from knowledge sharing, issues and challenges associated with knowledge sharing, and award/recognition entitlements.

James W. Carey's (2008) discourse on the transmission view of communication and the ritual view of communication has relevance to how the academics view knowledge sharing as communication. Carey explained that these two alternative conceptions of communication started in the nineteenth century, where the transmission view of communication is described as the commonest and dominates contemporary dictionary entries under the term. The terms associated with it are: "imparting," "sending," "transmitting," or giving information to others." Central to this notion of communication is the transmission of signals or messages over distance for the purpose of control. It derives from one of the most ancient of human dreams, which is the desire to increase the speed and effect of messages as they travel in space.

The ritual view of communication, on the other hand, is linked to terms such as "sharing," participation," association," "fellowship," and "the possession of a common faith." It is directed not toward the extension of messages in space but toward the maintenance of society in time, not the act of imparting information but the representation of shared beliefs. Thus, Carey asserted, if the archetypal case of communication under a transmission view is the extension of messages across

Table 2. Codes and themes for "Knowledge sharing as communication"

Codes	Essential Themes
• Dissemination and exchange of information, knowledge and skills among individuals and within and among organizations and communities • Sharing of ideas, opportunities, discoveries and innovation • Two-way experience	View of knowledge sharing as communication as an act of imparting information and the representation of shared beliefs and common experiences
• Quantitative and qualitative data • Opportunities • Discoveries • Innovation • Research result • Suggestion/feedback • Thoughts • Ideas	Knowledge shared comes in various forms and labels
• Blog • Social media • Radio and other mass media • Paper presentation • Journal publication • Book publication • Conversations during break time and meeting • Research manuscript editing • Panel for research defense • Technical journal reviewing • Researcher • Research adviser/editor • Writeshop • Seminar • Training • Conference	Knowledge sharing uses different communication channels/methods/strategies
• Enhances ones knowledge level •Develops personality traits •Contributes to individual performance •Promotes collaboration •Builds a network/linkage	Individuals and groups share knowledge for varied purposes
• Deepen organizational culture not only in research, but academically as well • Use as a management tool applicable to all functional areas • Contribute to organizational performance	Organizations benefit from knowledge sharing
• Depends on one's skill and traits • Faculty aged 50 above not interested to research knowledge • Culture of willingness to participate in research activities difficult to attain • Cannot prevent duplication • Sharer has ethical obligation • Creating a legacy	Knowledge sharing is not free from issues and challenges Sub-themes ➢ Researcher participation and engagement ➢ Ethical responsibility ➢ A legacy
• Professorial chair	Entitles one to award/recognition

geography for the purpose of control, the archetypal case under a ritual view is the sacred ceremony that brings people together in fellowship and commonality.

The movement of knowledge, which actually comes as "qualitative" or quantitative data," "opportunities," "discoveries," "innovation," "research result," and the like, from one communicator to the other, who may be a researcher him/herself or other researcher, administrator, faculty, student, etc. to persuade others to move to an action or to change one's state of mind is parallel with the transmission view of communication. The transmission of knowledge is evidently facilitated by technology like the print and broadcast media through books and journals and radio and television, as well the new media particularly through "blog" and "social media". The media, therefore, allows increased speed and effect of message. This, however, does not exclude "conversations during break time," "writeshop," "seminar," "training," and "conference" as well research manuscript editing and technical article reviewing as means of imparting information that facilitate the movement of knowledge. Questions that could arise as to the effects of this on knowledge sharers/users are: knowledge as enlightening or obscuring reality especially when a research result is judged as debatable, as changing or hardening attitudes about certain philosophical assumptions or ethical obligations, or as reflecting credibility or doubt with regard to the researcher/knowledge sharer.

Ritual view of communication, on the other hand, applies because when academics share knowledge they recognize that it "promotes collaboration," and that they "build a network/linkage." But it also portrays and confirms a certain view of the different factors related to "individual performance" and "organizational performance," "ethical responsibility," and "award/recognition entitlement" through a "professorial chair" which foster emphasizing shared beliefs, exchanges and shared

interactions among the researchers and other users of knowledge. The latter is critical because of its significance in developing and maintaining strong communities, particularly among the knowledge workers themselves. A ritual view of communication entails a focus on a different range of problems associated with knowledge sharing. It views knowledge sharing less as sending or gaining knowledge and more as a situation in which a particular view of the world is portrayed and confirmed. Knowledge sharing is a ritual act and a dramatic one as knowledge sharer/user engages in a continual shift of roles or of dramatic focus. The model here, according to Carey, is not that of information acquisition, but of dramatic action wherein the knowledge sharer/user joins a world of contending forces as an observer in a play. Questions encountered are not about the effect or functions of messages, or research knowledge as such, but the role of knowledge sharing presentation and involvement in the structuring of the academics' life and time.

Importance of knowledge sharing

Research Question 2: What is the research academics' regard on the importance of cognitions about knowledge sharing?

The magnitude of dissonance, as argued by Festinger, is an important variable in determining the pressure to reduce dissonance. While the study does not cover the specifics of dissonance reduction, it explored the academics' perceptions on the importance of knowledge sharing to determine if they experience a state of discomfort. Festinger, according to Littlejohn & Foss (2009), called this unpleasant state as dissonance and theorized that persons are motivated to engage in cognitive work so as to reduce the inconsistency. He explained that attitude change in response to a state of dissonance is expected to be in the direction of the cognition that is most resistant to change. Furthermore, Littlejohn & Foss cited that tests of the

theory often assume that one's most recent behavior is usually most resistant to change, because it is often very difficult to undo that behavior.

"I uphold the belief that education is sharing" or Cognition A is very important (6.13) and "I tend to withhold research knowledge" as Cognition B is somewhat important (5.4), where the cognitions about knowledge sharing are generally somewhat important (5.77), as reflected in Table 3.1. Of all the factors cited under Cognition A, they find the belief "education is sharing" as extremely important in reaching a wider audience through the use of communication technologies, in using collaborative pedagogical approaches in teaching and learning, then because of the idea of knowledge as a public good, and in providing learning resources freely and openly (6.41, 6.23, then both at 5.95 AWM; Items 1-4 Part II.A of Appendix D). Current research by Nosenko, Shyshkina, & Oleksiuk (2018) confirms that wider use of emerging information and communication technology tools and network technologies in the scientific and educational practice improves learning and research environment of higher education institutions. On the other hand, scientific collaboration, as found out by Coccia & Wang (2016), is a contributing factor that supports the evolution of modern scientific fields.

Table 3.1 Measure of importance of knowledge sharing

Cognition A *"I uphold the belief that education is sharing."*	Cognition B *"I tend to withhold research knowledge."*	Average Weighted Mean (AWM) of A & B
6.13 Very important	5.4 Somewhat important	5.77 Somewhat important

Meanwhile, "I tend to withhold research knowledge" or Cognition B is somewhat important primarily because of work culture (5.51 AWM; Item 4 Part II.B of Appendix D), time and trust (both at 5.50 AWM; Items 1 & 2 Part II.B of Appendix D), and rewards and incentives (5.08 AWM; Item 3 Part II.B of Appendix D). Culture, as confirmed by various authors (Caruso, 2017; Ismali, Xu, Wood & Welch, 2013; Lee, Foo, Chaudhry & Hawamdeh, 2004), remains a relevant factor when it comes to knowledge sharing.

Data shows parallelism with how they define knowledge sharing as communication based on the transmission view of communication. That is, knowledge sharing is important because it transmits information or research knowledge to as many people as possible through the use of mass media for increased speed and effect of messages. With regard to the ritual view of communication, knowledge sharing is important because it brings people together, such as the academics and other researchers, for participation and interaction that represents shared beliefs of the knowledge sharer and user.

Result is suggestive that they rationalize the decision of engaging in knowledge sharing based on the value they attached to it, while the whole process by which the relationships among individual communicative disposition (ICD), importance of knowledge sharing (IKS) and attitude towards knowledge sharing (KSA) were examined. This compelled a further analysis, which found that a subgroup of seven or 18% of the respondents have inconsistent cognitions on knowledge sharing. The subgroup surfaced because they rated the openness in education through knowledge sharing within the scale that describes it as important; at the same time they perceive the idea of keeping one's knowledge as not important. A large number of research academics embrace the idea of sharing

research knowledge, without contending with inconsistencies in their beliefs and actions; but is indicative of a particular group who are experiencing dissonance.

This prompted a thorough investigation specific to the subgroup, where a correlation analysis was performed between IKS and the profile of the research academics. Computing for the Spearman's Correlation Coefficient, the strength of relationship between the perceived IKS and the profile of the research academics was determined, as shown in Table 3.2.

Table 3.2. Summary of correlation between the importance of knowledge sharing and profile of research academics

Profile of Research Academics	Importance of Knowledge Sharing *Spearman's Correlation Coefficient r*	*Degree of Relationship*
Age	0.72	Strong
Years in Service	0.01	Very Weak
Academic Rank	0.01	Very Weak
Highest Degree Attained	0.41	Moderate

Among the four items, age is the only profile that has a strong relationship (r = 0.72) with IKS. This subgroup is composed of a combination of young, middle and senior age academics, indicating that having inconsistent views occurs in people of different ages. The findings is in agreement with the study of Grubić-Nešić, Matić, & Mitrović, (2015), Boateng, Dzandu, & Agyemang (2015), Marouf (2015), and Omar & Adruce (2017) that demographic variables like age has correlation with knowledge sharing.

When a teaching employee from the academe thinks that it is not important to share knowledge, this creates a state of dissonance. The cognition that advocates sharing knowledge in the academia appears to be the more resistant to change

because it is difficult to undo. It is congruent with the earlier cited statement that sharing and openness are in line with academic tradition, predating in late 1910. Rationalizing, by convincing oneself that s/he wants to share knowledge, although culture, time, trust, and rewards and incentives tend to restrict her/him, reduces the inconsistency and thereby reduces the unpleasant state of dissonance. A further analysis on this was performed when the relationship of perceived IKS was tested against the attitude towards knowledge sharing, which can be found after the discussion on the relationship between ICD and IKS.

Relationship between individual communicative disposition and importance of knowledge sharing

The first of the three aspects of ICD that was tested against IKS is Communication Self-Efficacy (CSE) to answer:

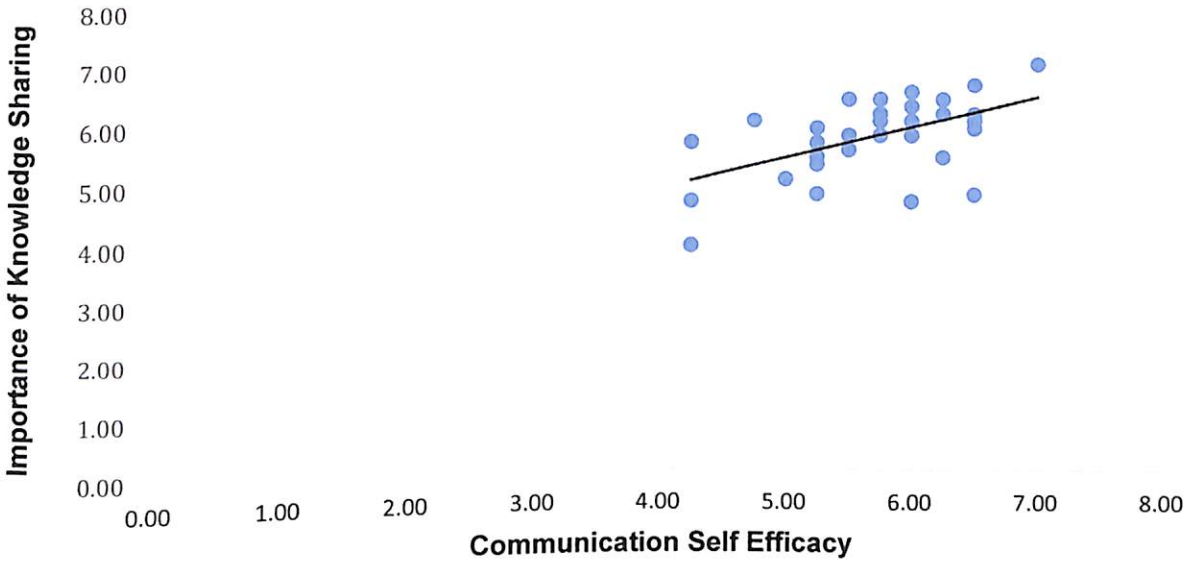
3. *What is the nature of relationship between individual communicative disposition and the importance of knowledge sharing?*

   3.1 How is communication self-efficacy related to the importance of knowledge sharing?

To determine the relationship between CSE and IKS, the responses of the respondents were presented in a mathematical diagram called a scatter plot. Every point in a scatter plot is defined by an ordered pair (x, y), which corresponds to responses of a respondent, as shown in Figure 3. Hence, 1 point on the graph, one respondent. The first element (x) in the ordered pair is the average of the responses in the questions under CSE, while the second element (y) is the average of the responses in the questions under IKS. Graphing all the average responses of the respondents produce the scatter plot, which becomes the basis of the correlation analysis.

The scatter plot shows a positive linear relationship between CSE and IKS, which rejects the null hypothesis. Further correlation analysis verifies moderate positive linear relationship since the computed Pearson correlation coefficient rho is 0.57. This means that high score in CSE is associated to high IKS.

Figure 3. Scatter plot of communication self-efficacy vs. importance of knowledge sharing



The academics' communication self-efficacy, or their confidence in "written and oral communication ability to share knowledge," having the "expertise required to communicate valuable knowledge," the belief that "it does makes a difference when I communicate knowledge with other academics, and thinking that "I can communicate more valuable knowledge than most of the academics in my school" (Items 1-4 Part III.A of Appendix D) presumably explains the value they place on knowledge sharing. That is, because they have the innate ability to communicate knowledge, they tended to perceive knowledge sharing as important.

Runhaar & Sanders (2016) offered the same explanation on the role of self-efficacy in promoting teacher's knowledge sharing in addition to the many

researches which confirm the substantial effect of self-efficacy on attitude on knowledge sharing (Runha, Shahzadi, Hameed & Kashif, 2015; Lambie, Hayes, Griffith, LImberg & Mullen, 2014; Tamjidyamcholo, Baba, Tamjid and Gholipour, 2013; Wasko and Faraj, 2005; Kankanhalli et al., 2005; Bock et al., 2005).

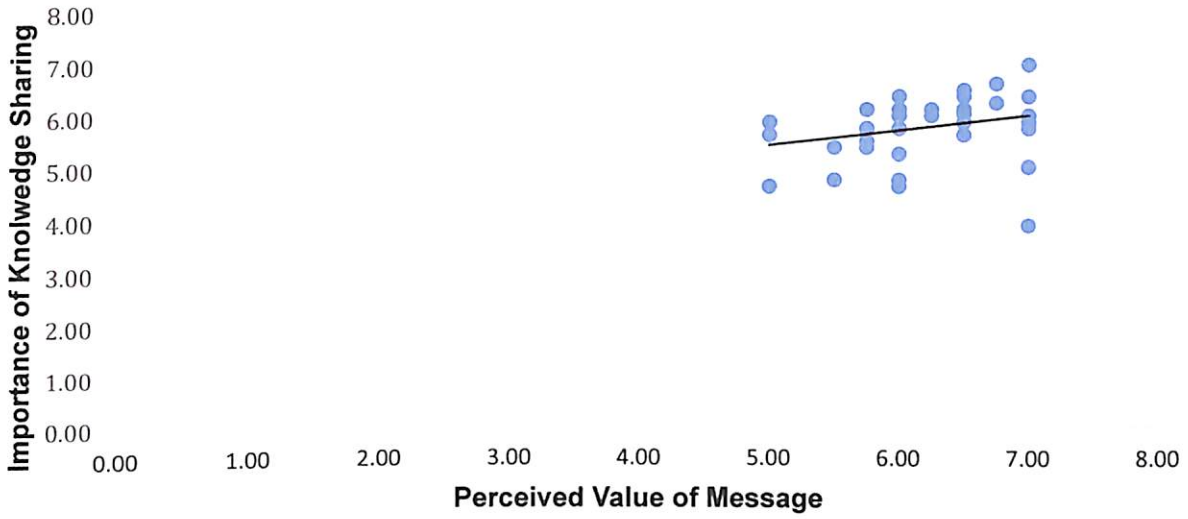
Second aspect of ICD that was tested against IKS is Perceived Value of Message (PVM) to answer:

3.2 How is perceived value of message related to the importance of knowledge sharing?

To describe the relationship between PVM and IKS, the responses of the respondents were presented in a mathematical diagram called a scatter plot. Every point in a scatter plot is defined by an ordered pair (x, y), which corresponds to responses of a respondent, as presented in Figure 4. Hence, 1 point on the graph, one respondent. The first element (x) in the ordered pair is the average of the responses in the questions under PVM, while the second element (y) is the average of the responses in the questions under IKS. Graphing all the average responses of the respondents produce the scatter plot, which becomes the basis of the correlation analysis.

The scatter plot also shows positive linear relationship between PVM and IKS. The null hypothesis, therefore, is rejected. However, correlation analysis verifies only weak positive linear relationship since the computed Pearson correlation coefficient rho is 0.27. Still, this means that high score in PVM is associated to high IKS.

Figure 4. Scatter plot of perceived value of message vs. importance of knowledge sharing



The academics recognize that because of their research knowledge they are able to "meet my task objectives," "help meet the challenge of my job," "work more efficiently," and be "better at what I do" (Items 1-4 of Part III.B of Appendix D), leading them to believe that knowledge sharing among academics is valuable. From here, one can infer the likelihood to regard knowledge sharing as important because of the worth assigned to research knowledge.

As members of the academic community where the value of openness in education and the practice of sharing knowledge are embraced, the academics fully recognize that the research knowledge they possess is useful in their work. The data supports the findings of Ford and Staples (2005) about usefulness of knowledge as a determinant of value by knowledge workers. Klein's (2010) findings provided support in asserting that useful knowledge is an effective and efficient tool in decision-making.

Ford and Staples' discussion on what constitute the value of knowledge, or referred to as message in the study, highlighted that employees' knowledge can be valued in terms of its influence on the employees' abilities to perform their jobs and

for the organization to achieve its goals. Only the usefulness dimension of PVM was considered in this study, which was found to have weak association with IKS. This suggests that other dimensions listed by Ford and Staples such as benefits from having the knowledge, uniqueness vs. commonness, accessibility by others, and the manner by which the knowledge was obtained or the source of the knowledge should be integral when relating PVM to IKS. Taking the usefulness dimension in isolation tended to overlook the value of the message in its entirety, which possibly resulted to its weak relationship with IKS. In most basic sense, the dimensions of value of knowledge reasonably contribute to the totality of experience of leadership, beliefs, values, traditions, interactions, behaviors and attitudes of academics, which affirms the predominance of "work culture" as a factor when academics "withhold research knowledge."

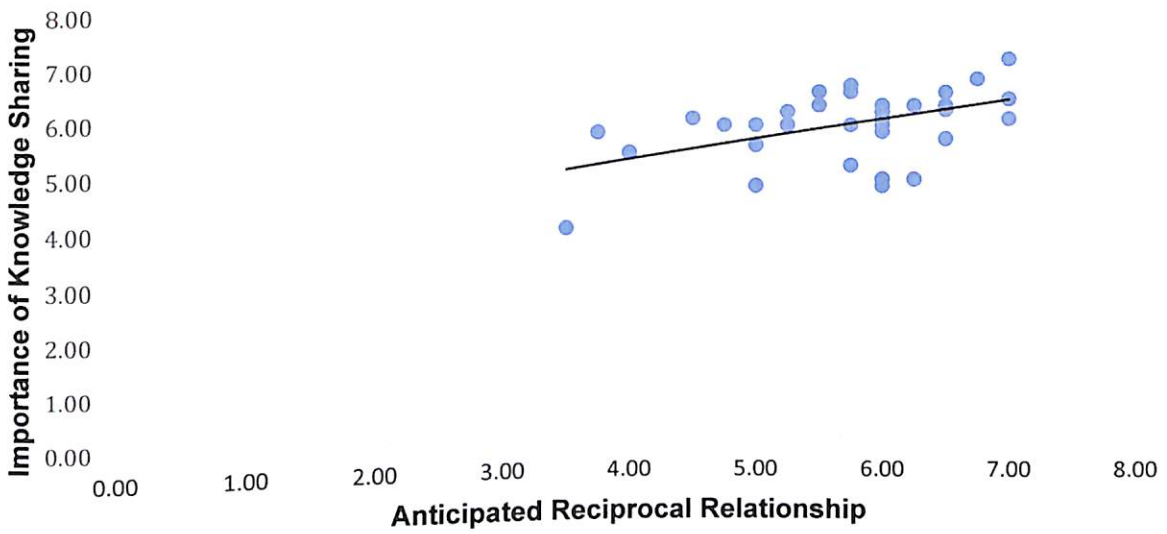
The third aspect of ICD that was tested against IKS is Anticipated Reciprocal Relationship (ARR) to answer:

3.3 How is anticipated reciprocal relationship related to the importance of knowledge sharing?

In illustrating the relationship between ARR and IKS, the responses of the respondents were presented in a mathematical diagram called a scatter plot. Every point in a scatter plot is defined by an ordered pair (x, y), which corresponds to responses of a respondent, as depicted in Figure 5. Hence, 1 point on the graph, one respondent. The first element (x) in the ordered pair is the average of the responses in the questions under ARR, while the second element (y) is the average of the responses in the questions under IKS. Graphing all the average responses of the respondents produce the scatter plot, which becomes the basis of the correlation analysis.

The scatter plot shows positive linear relationship between ARR and IKS, which rejects the null hypothesis. Correlation analysis confirms moderate positive linear relationship since the computed Pearson correlation coefficient rho is 0.51. This also means that high score in ARR is correlated to high IKS.

Figure 5. Scatter plot of anticipated reciprocal relationship vs. importance of knowledge sharing



The academics desire to maintain ongoing relationships with others when they communicate research knowledge because, as they've agreed, "I strengthen ties between them and myself," "I expand the scope of my association", "I expect to receive knowledge in return," and "I believe that my future requests for knowledge will be answered" (Items 1-4 of Part III.C of Appendix D), which convinced them to weigh in knowledge sharing as imperative in the academe. They perceive knowledge sharing as important because it helps them maintain their desired ongoing relationships with others.

The academics have strong desire to maintain ongoing relationships with others through knowledge sharing, but work culture, time, trust and rewards and incentives tend to constrain them. Van den Hooff & Huysman (2009) elucidated that

a knowledge sharing culture in the academia allows relevant knowledge to be found, eases active interaction between members, increases awareness, and develops an environment of trust, reciprocity, and even self-efficacy. Studies confirm that organizational culture has a positive effect on attitudes towards knowledge sharing (Tan, 2016; Van den Hooff & Huysman, 2009; Lai and Lee, 2007). In other words, when organizational culture by means of knowledge sharing is strengthened, it encourages academics to have a strong desire to maintain strong relationships.

From this discussion, an evaluation of work culture and how it relates to individual factors with regard to knowledge sharing was revealed as crucial in light of advancing the level of ongoing relationships among the academics that engage in knowledge sharing.

Table 4 summarizes the correlations between ICD and IKS, where it shows that, in general, ICD has positive correlation with IKS

Table 4. Summary of correlations between individual communicative disposition and importance of knowledge sharing

Variables	Direction and Form of Relationship	Pearson correlation coefficient rho	Strength of Correlation
CSE and IKS	Positive Linear	0.57	Moderate
PVM and IKS	Positive Linear	0.27	Weak
ARR and IKS	Positive Linear	0.51	Moderate

A positive association between the Individual Communicative Disposition, manifested in the academics' CSE, PVM, and ARR, and the Importance of Knowledge Sharing was revealed in this study. When individuals have positive communicative disposition, they regard knowledge sharing as important. Or in other

words, characterized by a favorable tendency to communicate knowledge, the academics are generally probable to value knowledge sharing.

Relationship between the importance of knowledge sharing and knowledge sharing attitude

The relationship between IKS and knowledge sharing attitude (KSA) was tested and a scatterplot was used to visualize the relationship between the variables to answer:

4. *What is the nature of relationship between the importance of knowledge sharing and attitude of academics towards knowledge sharing?*

The relationship between IKS and KSA was described by presenting the responses of the respondents in a type of plot called scatter plot. Every point in a scatter plot is defined by an ordered pair (x, y), which corresponds to responses of a respondent, as indicated in Figure 6. Hence, 1 point on the graph, one respondent. The first element (x) in the ordered pair is the average of the responses in the questions under IKS, while the second element (y) is the average of the responses in the questions under KSA. Graphing all the average responses of the respondents produce the scatter plot, which becomes the basis of the correlation analysis. Table 5, on the other hand, presents the summary of correlation between IKS and KSA.

The scatter plot shows a positive linear relationship between IKS and KSA. This rejects the null hypothesis. Correlation analysis confirms moderate positive linear relationship since the computed Pearson correlation coefficient rho is 0.57. This also means that high score in IKS is associated with high score in KSA.

Figure 6. Scatter plot of importance of knowledge sharing and knowledge sharing attitude

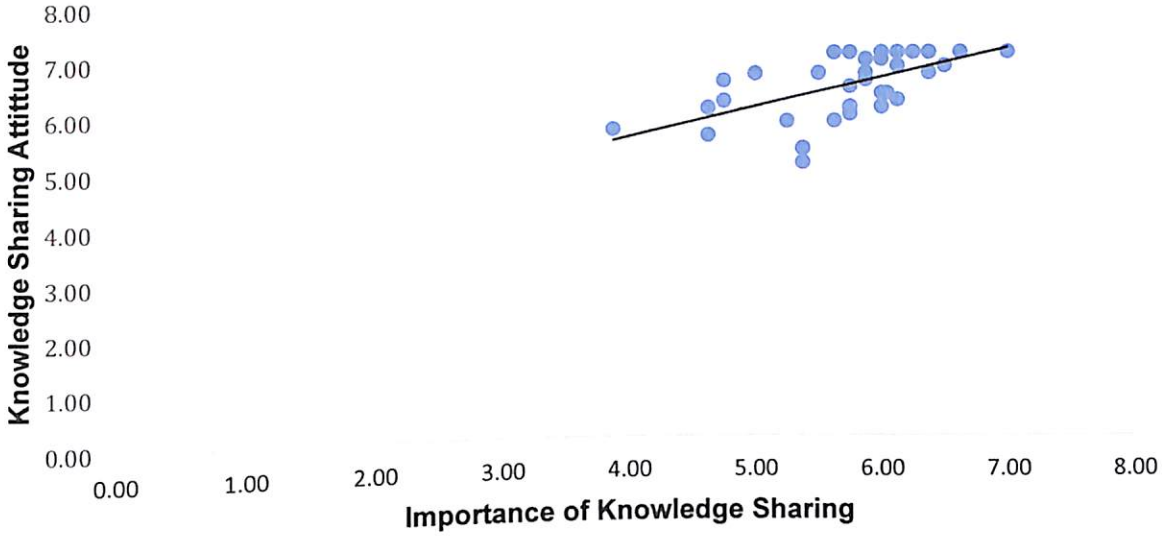


Table 5. Summary of correlation between the importance of knowledge sharing and knowledge sharing attitude

Variables	Direction and Form of Relationship	Pearson correlation coefficient rho	Strength of Correlation
IKS and KSA	Positive Linear	0.57	Moderate

The academics agree that sharing of knowledge leads to innovation in pedagogy, enhances the effectiveness and efficiency of the educators, leads to professional development and better performance, and enhances the reputation of an educator. They also agree that sharing of knowledge is in line with the academic tradition, should be encouraged at the institutional level, is essential in today's competitive environment, and enhances the reputation of the institution (Items 1-8, Part IV Appendix D). Such way of thinking about knowledge sharing elucidates the significance of knowledge sharing for the academics. Practically, the benefits of

knowledge sharing for the academics and their organization provide a solid ground for their perceived importance of knowledge sharing.

Overall, there is a positive moderate linear relationship between the components of the variables as shown by the scatter plots, which are generally increasing. As ICD score increases, which can be manifested in one's CSE, PVM, and ARR, so does the IKS. Similarly, as IKS score increases, KSA also increases. Consequently, as the ICD score increases it tends to increase the KSA score by transitivity. This means that given a certain degree of importance placed in knowledge sharing, there exists a positive association between communicative disposition and attitude towards knowledge sharing.

A two-tailed test of significance was done and as shown in Table 6, an observation that there is a significant relationship between CSE and IKS (r=0.57; p=0.001) was noted, which is similar between ARR and CD (r=0.51; p=0.001). Between PVM and CD, however, a not significant relationship was observed (r=0.27; and p=0.095). With regard to IKS and KSA, a significant relationship was also observed (r=0.57; p=0.001).

Table 6. Summary of statistical significance of correlation between individual communicative disposition and importance of knowledge sharing, and importance of knowledge sharing and knowledge sharing attitude

Individual Communicative Disposition	**Importance of Knowledge Sharing**			
	r	***r²***	**p-value**	**S/NS**
Communication Self-Efficacy	0.57	0.32	0.001	Significant
Perceived Value of Message	0.27	0.07	0.095	Not Significant
Anticipated Reciprocal Relationship	0.51	0.26	0.001	Significant

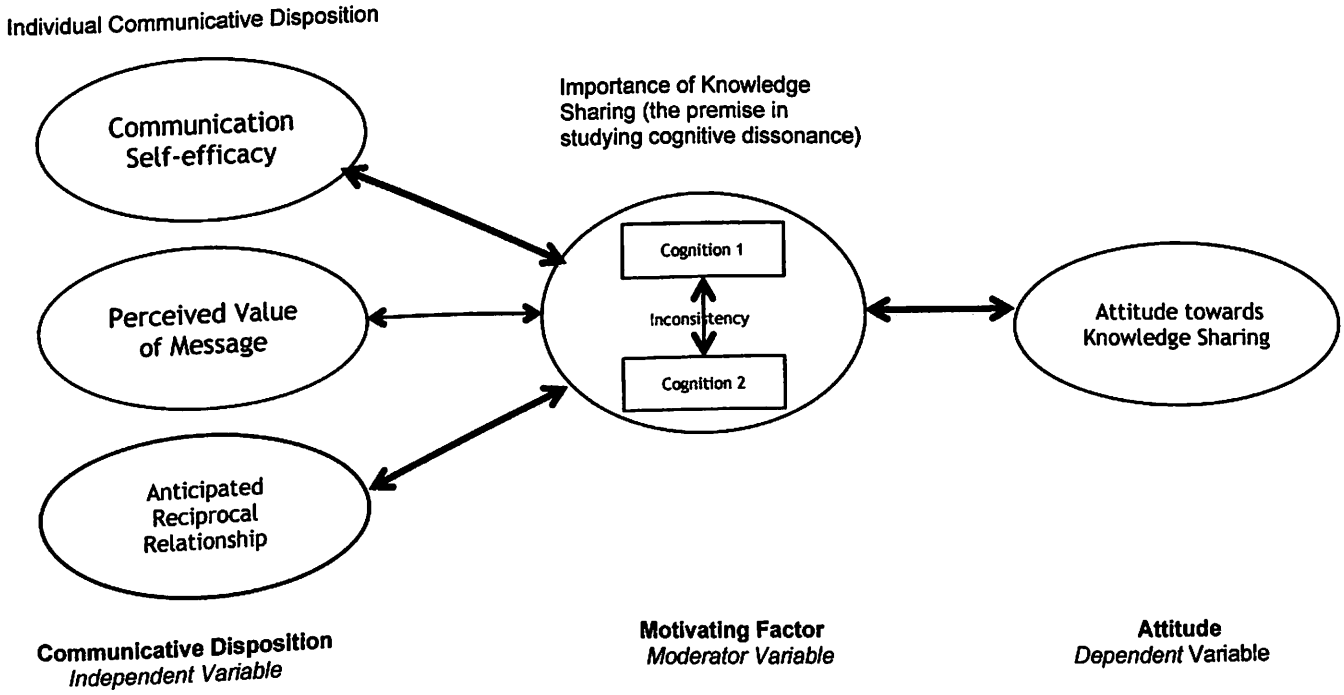
	Knowledge Sharing Attitude			
	r	***r²***	**p-value**	**S/NS**
Importance of Knowledge Sharing	0.57	0.33	0.001	Significant

Correlation is significant at the level 0.05 (2-tailed)

The importance of knowledge sharing affects the strength of relationship between individual communicative disposition and knowledge sharing attitude. Accordingly, it makes sense to operationalize individual communicative disposition, or one's inclination to communicate, as the independent variable, and attitude towards knowledge sharing, or one's state of thinking about knowledge sharing, as the dependent variable.

With the causal sequence that underlie individual communicative disposition and knowledge sharing attitude, this study argued that just because one has the inclination to communicate does not mean it will lead to a kind of attitude towards knowledge sharing. Findings indicated that the academics' attached importance to knowledge sharing is a moderator variable between communicative disposition and attitude towards knowledge sharing. A model presentation is developed to represent the analysis of the phenomenon (Figure 7).

Figure 7. Model presentation of communicative disposition, importance of knowledge sharing, and attitude towards knowledge sharing relationship



Earlier in this paper it was discussed that through the lens of Cognitive Dissonance Theory the academics' beliefs about openness in education and knowledge sharing affect their behaviors, or their attitude in a broader sense. So long as they believe on the value of sharing research knowledge, they will be motivated to act in a way that fits with this belief, to be consistent. If there is inconsistency, they will experience cognitive dissonance where they feel uncomfortable. Cooper (2007) mentioned that dissonance is a powerful, "drive-like" motivator, which needs attention because it is not simply a choice or a decision.

Current situation suggests that for the subgroup of academics with inconsistent views on knowledge sharing, this caused tension that is arousing and experienced as an unpleasant state, and they are driven to reduce it. The general finding on the positive attitude towards knowledge sharing of all the academics is reflective of the subgroup's response to this state of dissonance. Festinger said that attitude change is expected to be in the direction of the cognition that is most resistant to change, as cited by Littlejohn & Foss (2009). Tests of the theory often assume that one's most recent behavior, or attitude for this matter, is usually most resistant to change, because it is often very difficult to undo that behavior, or that attitude. Because this subgroup has positive communicative disposition and believe in the value of knowledge sharing, they make a stand to be consistent with this belief as substantiated by their way of thinking, that is to have positive attitude towards knowledge sharing to restore balance. Theoretically, this is consistent with the fundamental assumptions of Cognitive Dissonance Theory that humans are sensitive to inconsistencies between actions and beliefs and that recognition of this inconsistency will cause dissonance, and will motivate the academics to resolve this dissonance.

Other theoretical perspectives support the statistically significant relationships between (1) communication self-efficacy and the importance of knowledge sharing; (2) anticipated reciprocal relationship and the importance of knowledge sharing; and (3) the importance of knowledge sharing and knowledge sharing attitude. The theory of self-efficacy of Albert Bandura (1977) which explains that one's belief in one's ability to communicate, or to share knowledge, results in realizing one's desire for professional growth and in contributing to organizational performance. The theory of social exchange by George Homans (1958) which elucidates that the academics' knowledge sharing behavior is a result of an exchange process, such that one's sharing of research knowledge is reciprocated by actions, and or relationships between and among fellow academics and other knowledge users, that are approximately equal in value, and so the rewards outweigh the risks, hence they continue the desire to maintain the ongoing social relationships.

This is a profound affirmation that knowledge sharing as a communication phenomenon is centered on the individual communicator as a socialized entity. The academics, who has the belief in one's ability to accomplish a task through communication, is a social being regularly interacting with others, and these interactions, through sharing research knowledge, result in relationships that facilitate the provision of other needs. Side by side with this communication tradition's truest sense, the academics as individuals are a social being, and while they are a part of a network of people – being a member of an organization, they are independent in their actions.

The academics him/herself assigns the worth to his or her own knowledge, but knowledge is the message that the academics communicate. What explains the not significant relationship between perceived value of message and the importance

of knowledge sharing is the fact that message is the content of communication, while the academics, as the communicator, is a social being who has the ability to accomplish tasks and build and maintain relationships through communication. On the other hand, message as an element of communication conveys meanings that, according to the theorists under semiotic lens, are represented by signs, symbols, language, and the like; but its socio-psychological "effects," as semiotics theorists assert, are internal properties of sign systems (Craig, 1999). This contradiction to the perspective taken by this study also challenges Sohail & Daud (2009)'s findings that the nature of knowledge is one of the strongest predictors of knowledge sharing behavior.

Nevertheless, the explanation gathered from literature review, particularly that of Ismail, et al.'s paper (2013) on knowledge sharing attitude, stated that career development is a core driver that positively induce researchers in sharing research knowledge found support from the current study because individual professional growth essentially stirs positive knowledge sharing attitude. Furthermore, while Ismail, et al.'s study revealed that motivation to share is one of the factors that affect researchers from sharing research knowledge; the current study supports this based on the significant relationship that the importance of knowledge sharing has with knowledge sharing attitude.

Generally, the significant relationships between ICD and IKS, then between IKS and KSA implies that the current study confirms previously reviewed studies in attributing factors like work culture (Tan, 2016; Chmielecki, 2013; Sohail & Daud, 2009; Lee, et al., 2004), time (Lee, et al., 2004), trust (Tan, 2016; Chmielecki, 2013, and rewards and incentives (Tan, 2016; Cheng, et al, 2009; Wah, et al. 2007) that

predict the effect of academics' communicative disposition towards knowledge sharing attitude.

The strong agreement of the academics about knowledge sharing contributing to individual professional growth and organizational performance can be sustained by fostering a work environment that encourages improved communication self-efficacy and anticipated reciprocal relationship, especially because the academics view knowledge sharing as an act of representing shared beliefs that brings the academics together in fellowship, consistent with Carey's (2008) ritual view of communication theory. Such also entails the provision and access to adequate technologies in forms like print, broadcast, and the new media, without excluding conversations during break period, and activities like writeshop, seminar, training and conference, including research manuscript editing and technical journal reviewing as ways of imparting research knowledge for increased speed and effect of messages, with reference to their view of knowledge sharing within the transmission view of communication.

Chapter Six

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This research was conducted to develop in-depth view on knowledge sharing conceptualized as a form of communication among research academics. The specific objectives of this study aimed: (1) to formulate a definition of knowledge sharing as communication based on the experience of research academics; (2) to describe the academics' regard on the importance of knowledge sharing as premise in studying cognitive dissonance; (3) to determine the nature of relationship between individual communicative disposition and the importance of knowledge sharing; and (4) to determine the nature of relationship between the importance of knowledge sharing and knowledge sharing attitude; and (5) develop a model presentation of the individual communicative disposition-importance of knowledge sharing-knowledge sharing attitude relationship. A comprehensive review of literatures on knowledge sharing in higher education institutions, on communicative disposition, and on cognitive dissonance provided support in attaining these objectives. Central idea during the literature review is knowledge sharing as an individual activity viewed under the communication standpoint, and in which the importance of knowledge sharing as the premise in studying cognitive dissonance.

Survey research design was employed, wherein all teaching personnel in a higher education institution who actively perform research function answered a self-administered questionnaire. Out of 42 distributed questionnaires, which was a modified instrument based from existing and previously validated instruments, 39 returned accomplished questionnaires. This has five parts, wherein the first sought to draw out a constructivist view on the respondents' conceptualization of knowledge

sharing as communication based on actual research practices. Part II Importance of Knowledge Sharing has two major constructs that imply one's view on the importance of sharing knowledge: "I uphold the belief that 'education is sharing' because of factors like..." with four items developed based on the work of Panda & Santosh (2017) on faculty perception of openness and attitude to open sharing; and "I tend to withhold research knowledge because of" with four items developed based on the studies of Ismail, Xu, Wood & Welch, (2013), Lee, Foo, Chaudhry & Hawamdeh (2004), Chmielecki (2013), Tan (2016), Cheng, Ho, & Lau (2009), Wah, Menkhoff, Loh & Evers (2007), and Sohail & Daud (2009) on knowledge sharing in higher education. They rated the items for each of the two dissonant cognitions based on a 7-point Likert-type scale with options from 1 'Not at all important' to 7 'Extremely important.' Part III Individual Communicative Disposition Communication Self-Efficacy (CSE), has four items which were developed based on the work of Tan (2016) on enhancing knowledge sharing and research collaboration among academics; Individual Communicative Disposition – Perceived Value of Message (PVM), has four items developed from the work of Ford and Staples (2005); and Individual Communicative Disposition – Anticipated Reciprocal Relationship (ARR), in which the four items were also developed based on the work of Tan (2016). Part IV Knowledge Sharing Attitude (KSA) has eight items developed based on the work of Panda & Santosh (2017). They rated the items for each construct about knowledge sharing attitude based on a 7-point Likert-type scale ranging from 1 'Strongly disagree' to 7 'Strongly agree.' Part V General Demographic Information is where the respondents select the option that describes their age, number of years in service, academic rank and highest degree attained. The instrument underwent two stages of validation through an expert panel and field survey. To ensure the

instrument's validity, Content Validity Index at the item level was computed using the ratings of item relevance given by the panel of experts.

For the open-ended responses on the meaning of knowledge sharing as communication, a thematic analysis was done. For the quantitative data gathered, correlation analyses were done to determine the strength of relationships of variables, and then scatter plots were used to visualize the relationships between the variables. Pearson Correlation Coefficient ρ with two-tailed tests of significance were computed for each case to test the statistical significance of the relationships.

With regard to the findings on importance of knowledge sharing as premise in explaining cognitive dissonance, a further investigation was done by computing for the Spearman's Correlation Coefficient to determine the nature or relationship between the importance of knowledge sharing and the profile of respondents.

The study had a large majority of respondents in their senior age of 51 to 60 (31%) and middle age groups of 41 to 50 (28%) and 31 to 40 (26%) reckoning to 85% of the respondents. More than one-third (36%) of the total number have been in service for 11 to 20 years, have Master's degree (56%) or Doctorate degree (38%), and currently employed as Instructor (36%) or Assistant Professor (33%).

The academics define knowledge sharing as an act of imparting information and the representation of shared beliefs and experiences. Knowledge comes in different forms and labels such as qualitative and quantitative data, opportunities, discoveries, innovation, research result, etc. Different communication channels, methods, and strategies are used in sharing knowledge such as print, broadcast and the new media through social media and blog, then through journal and book publications, as well as conversations during break time and meeting, research manuscript editing, technical journal reviewing, writeshop, seminar, training, and

conference. Individuals and groups share knowledge because it enhances one's knowledge level, develops personality traits, contributes to individual performance, promotes collaboration, and builds a network/linkage. They believe that organizations benefit from knowledge sharing because it deepens organizational culture not only in research, but academically as well; it can be used as a management tool applicable to all functional areas; and generally, it contributes to organizational performance. They are likewise aware that in knowledge sharing, there are issues and challenges such as those related to level of participation and engagement, ethical responsibility, and on creating a legacy. Nevertheless, it entitles the academics to an award or recognition such a professorial chair, which is an academic position created to recognize the significant contribution to scholarship and research of a faculty. Their conceptualization of knowledge sharing as communication corresponds to James W. Carey's discourse on transmission view of communication and ritual view of communication.

The academics obviously noted the benefits from sharing research knowledge, so it is not surprising they regard knowledge sharing as important. But exclusive to a subgroup of seven or 18% of the academics has inconsistent cognitions on knowledge sharing. According to Festinger, if a person deals with two cognitions that are dissonant, e.g. the belief on knowledge sharing or openness in education as important because it allows reaching a wider audience through the use of communication technologies, enables the use of collaborative pedagogical approaches in teaching and learning, provides learning resources freely and openly, and recognizes the idea of knowledge as a public good; and the factors such as culture, time, trust, and rewards and incentives that predict the academics' knowledge sharing as not important, then that person is experiencing a mental

discomfort, a psychological tension, an inconsistency, or cognitive dissonance. These academics justify through persuading one self that he/she wants to share knowledge, even if some factors tend to restrict him/her, and it reduces the state of dissonance. This prompted a correlation analysis, which found out that age profile is strongly related to their perceived importance of knowledge sharing. This subgroup is composed of a combination of different age groups, which validates that dissonance can occur in people of different ages. The finding is in accordance with Jack Brehm's experiment that established the free choice paradigm, which forwards the viewpoint that cognitive dissonance is a ubiquitous phenomenon (Cooper, 2007). That is to say, individuals make choices all of the time; the academics, in particular, make decision every day. And each time they make one of those decisions particularly as they perform research functions, they are subjected to the experience of cognitive dissonance and are likely to take action to reduce it.

Individual communicative disposition, or one's tendency to act in a communication situation particularly in sharing research knowledge was taken as the independent variable in the study. It was assumed that this is manifested in one's communication self-efficacy, perceived value of message, and anticipated reciprocal relationship. Its relationship with the importance of knowledge sharing was examined and it was found out that individual communicative disposition and the importance of knowledge sharing have a positive association, where both communication self-efficacy and anticipated reciprocal relationship have moderate relationships with the importance of knowledge sharing, but perceived value of message has a weak relationship with the importance of knowledge sharing. As communication self-efficacy increases, so does the importance of knowledge sharing; the same between anticipated reciprocal relationship and the importance of knowledge sharing. But

between perceived value of message and the importance of knowledge sharing, it is at a lower likelihood of there being a relationship.

When the relationship between the importance of knowledge sharing and knowledge sharing attitude was analyzed, a positive association was revealed. As the importance of knowledge sharing increases, so does knowledge sharing attitude, at a moderate relationship.

Academics who have contrasting cognitions on knowledge sharing experienced an unpleasant state, and they were driven to reduce it, based on Festinger's Cognitive Dissonance Theory. The general findings that the academics have positive attitude towards knowledge sharing shows that their experience of cognitive dissonance motivated them to act in a manner that is in harmony with the belief that knowledge sharing is important, to be consistent. The academics' positive communicative disposition contributed in the attempt to restore balance and harmony because of its positive correlation with the perceived value of knowledge sharing. A model presentation was then developed which showed that the value of knowledge sharing moderates the individual communicative disposition-knowledge sharing attitude relationship.

Conclusions

The study is an empirical and theoretical investigation on the relationships among individual communicative disposition, the importance of knowledge sharing, and knowledge sharing attitude. It sketched out knowledge sharing as a form of communication in the academe, particularly among the teaching personnel engaged in sharing context-specific knowledge - the research knowledge which covers but not limited to a research idea development, research proposal packaging, research design and methodology selection, and research result writing and presentation. The

study argued that the academics' individual communicative disposition, or just because one has the inclination to communicate knowledge, it will lead to a kind of attitude towards knowledge sharing. A variable moderates the causal relationship between the two, and that is the perceived value of knowledge sharing. The data on the importance of knowledge sharing also provided the premise in studying cognitive dissonance through a communication phenomenon. In the academic setting, knowledge sharing as communication shows distinct attributes as follow.

Conceptualizing knowledge sharing as communication

Knowledge sharing was conceptualized as a communication phenomenon with strands of meaning that are parallel with James W. Carrey's (2008) discourse on transmission view of communication and ritual view of communication. Through the transmission view of communication, knowledge sharing as communication is the movement of knowledge in the form of qualitative or quantitative data, opportunities, discoveries, innovation, research result, etc., from the academics as the communicator to other knowledge sharer or user for dissemination. Technologies in print and broadcast media, then the new media like social media and blog, as well as activities like conversations during break time, writeshop, seminar, training, conference, research manuscript editing, and technical article reviewing facilitate the increased speed and effect of the message. This transmission of knowledge results to influencing others by inducing a change in behavior or belief that leads to one's professional development and organizational performance.

Knowledge sharing as communication from the ritual view of communication by Carey is sharing research knowledge to promote collaboration and to build a network/linkage. However, sharing research knowledge also portrays and confirms a

certain view of different factors related to individual performance, organizational performance, ethical responsibility and entitlement to award/recognition, which encourage the integration of shared beliefs, exchanges and shared interactions among the researchers and other users of knowledge. In other words, the academics are actually participants not sender and receiver of information. Knowledge sharing draws people together to develop and maintain strong communities, particularly among the knowledge workers themselves.

As a communication phenomenon, viewed within the transmission and the ritual models of communication, academics make decisions and as each time they make a decision on knowledge sharing, they are subjected to the experience of cognitive dissonance. This strengthened the basis in integrating the concept cognitive dissonance in this study on knowledge sharing as communication.

Concurring with Carey's assertion that communication can be modeled in several empirically adequate ways, certain forms of social relations were revealed based on the two strands of constructivist conceptualization of knowledge sharing as communication. The study, in its attempt to define, or even redefine, knowledge sharing unfolded a different perspective with implications in knowledge management and organizational communication.

Explaining knowledge sharing as a communication phenomenon through CDT lens

Knowledge sharing is a communication phenomenon in which academics make choices on who, where, when and how to do it, and which make them a subject to the experience of cognitive dissonance and likely to take action to reduce it. The ubiquity of cognitive dissonance in knowledge sharing as a communication phenomenon, therefore, cannot be denied.

The dissonance, which other authors refer to as a psychological tension, mental discomfort, internal conflict, inconsistency, or stress, that an individual experiences while rationalizing a decision on the importance and non-importance of sharing knowledge, affects the strength of individual communicative disposition-knowledge sharing attitude relationship. Knowledge sharing as communication benefitted from Cognitive Dissonance Theory in understanding the effect of internal inconsistency in one's attitude. While the occurrence of dissonance is true only to a subgroup of the participants in the study, still it contributed in the CDT body of knowledge particularly in affirming the CDT's assumptions that humans are sensitive to inconsistencies between actions and beliefs, and that recognition of this inconsistency will cause dissonance, and will motivate an individual to resolve it. This also validated the relationship between demographic profile and attitude towards knowledge sharing.

The study, therefore, forwarded the application of CDT particularly on how Festinger explained the occurrence of dissonance and its effect on attitude change. Furthermore, this research is in accordance with Harmon-Jones & Harmon-Jones (2007) assertion that, while this theory has weathered many challenges, it still provides much explanatory, integrative, and generative power. That being the case, the theory carries much potential of moving forward in new directions that can uncover insights about other communication phenomenon.

Communicative disposition: key element in knowledge sharing

Communicative disposition is capable of bringing about socio-psychological effects, such as an attitude towards knowledge sharing. But this is true to some dimensions of communicative disposition only such as self-efficacy and perception of

knowledge which, according to Wang & Noe's (2010) review and directions for future research on knowledge sharing, were topics needing future research.

One's tendency to act in a communication situation, which can be observed as communication self-efficacy or the confidence level in one's ability to share knowledge, and anticipated reciprocal relationship or the desire to maintain ongoing relationships among other knowledge sharers and users, can lead to a work environment that strongly encourage knowledge sharing. For without the belief in one's ability to communicate knowledge and if actions and relationships are not reciprocated when one shares knowledge, an attitude that favors the idea of sharing knowledge becomes less possible.

The respondent-employees have been in service with the school for a relative time even if it is a small college, but it was able to establish a work environment that fosters positive communicative disposition among the academics, and hence a positive attitude towards knowledge sharing. But then this work environment also perpetuates one's tendency to withhold research knowledge, or to cause them to experience cognitive dissonance. Such is a call to sustain a work environment that nurtures a positive communicative disposition through a balanced integration in the internal policies, systems and processes within the organization.

Recommendations

The study recommends the following based on the results and findings:

Communication scholars and practitioners must look at knowledge sharing as a communication process in the service of knowledge management and organizational communication. Advocating Carey's (2008) assertion that advances in communication technologies should be looked at as opportunities to expand people's powers to learn and exchange ideas and experience suggest interesting possibilities

in line with knowledge management and organizational communication. But, foremost, this can be realized with a reframing of mindset that the academe can excel in achieving research productivity and output when they are empowered as to the use of advances in communication technologies to extend their ability to create, store, retrieve, transfer and apply knowledge for organizational effectiveness.

With regard to the academics' understanding of knowledge sharing as communication vis-à-vis the ritual view of communication, there lies a rich potential in rebuilding a model of communication with a "...restorative value in reshaping..." a "...common culture" (Carey, 2008) among research academics. From there, communication scholars can develop new ways of exploring, understanding, and even questioning a common culture, e.g. knowledge sharing culture and communication culture, which, in turn, can re-define the common culture.

Fostering a knowledge sharing culture, or a culture that empowers the employees to communicate knowledge, whether written or oral and through the use of traditional and new media, within an organization will allow its people to see the many potential benefits when one engages in sharing research knowledge. This will make the individual put more value on the idea of knowledge sharing, so just in case a member of an organization would have conflicting beliefs and actions about knowledge sharing, one would have the motivation to be consistent with the value of knowledge sharing.

After showing that cognitive dissonance has effect on individual communicative disposition-knowledge sharing attitude relationship, an empirical and theoretical query on dissonance reduction strategies is logical. Some references explained that dissonance can be reduced through effort justification, free choice, or spreading the alternatives, other authors would contend rationalizing, selective

exposure, polarization of alternatives, or any of the strategies for maintaining cognitive consistency such as denial, bolstering, bargaining, and differentiation, etc. This, however, should be investigated within the communication perspective as well.

Other dimensions of communicative disposition as an element of knowledge sharing as communication, and to include profile or the demographic information are variables that can be studied through a structural equation modeling (SEM) in order to advance the current empirical researches on knowledge sharing. The following may also be considered in the model: personality, evaluation apprehension, and impression management, consistent with Wang & Noe's (2010) findings that these individual factors are topics needing research.

Communication perspective is a perspective that needs to be incorporated in the planning, design, implementation, and evaluation of knowledge management system, particularly the knowledge sharing strategies so that academic organizations can fully benefit from the research knowledge of the academics.

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APPENDICES

APPENDIX A

Letter of permission

Republic of the Philippines
CAMARINES NORTE STATE COLLEGE
F. Pimentel Avenue, Brgy. 2, Daet, Camarines Norte - 4600, Philippines

12 September 2018

CAMARINES NORTE STATE COLLEGE
OFFICE OF THE PRESIDENT
RECEIVED
By: _____ Date: SEP 13 2018
Transaction No.: 0000393

Dr. Rusty G. Abanto
College President

Sir:

This is to request permission to conduct a research study at our institution. I am currently enrolled in the Doctor of Communication program at the University of the Philippines Open University, and am in the process of writing my Doctoral Dissertation.

I intend to study cognitive dissonance in the context of research knowledge sharing conceptualized as communication among academics in this College. The theoretical contribution of this study is the application of Cognitive Dissonance Theory (CDT) in the field of knowledge management and communication in higher education, an unpopular area unlike marketing and consumer behavior where CDT is frequently studied. Doing this research study will be beneficial for our institution because:

1. the knowledge of the degree of dissonance among research academics will serve as baseline information in understanding knowledge management and communication policy and practice implications; and
2. a blueprint of the College's research knowledge sharing context will contribute to the scarce literature on this topic and will serve as a reference for knowledge management particularly in the area of research;

This research undertaking is also aligned with my reentry plan as scholar of the CHED Kto12 Program, which is to contribute to the understanding and application of knowledge management as a development strategy of the Camarines Norte State College.

My Dissertation Adviser instructed me to detail out the sampling procedure of the proposed study. This and other relevant succeeding activities would necessitate that I coordinate and work closely with the Office of the Vice President for Research and Extension and the Research Services Center of our College.

Your approval to conduct this study will be greatly appreciated and will enable me to complete the requirements for the degree program.

Thank you very much.

Sincerely,

APPENDIX B

References of constructs in the survey instrument

Item	Reference
I. Importance of Knowledge Sharing	
A. I uphold the belief that "Education is sharing, hence knowledge should be made available to others" because of factors like	
1. The idea of knowledge as a public good	**Developed based on the work of Panda, S., & Santosh, S. (2017). Faculty Perception of Openness and Attitude to Open Sharing at the Indian National Open University. *International Review of Research in Open and Distributed Learning, 18*(7).**
2. Providing learning resources freely and openly	
3. The use of collaborative pedagogical approaches in teaching and learning	
4. Reaching a wider audience through the use of communication technologies	
B. "I tend to withhold research knowledge" because of	
1. Time	**Developed based on reviewed studies on predictors of knowledge sharing, particularly:**
2. Trust	
3. Rewards and incentives	
4 Working culture	Item # 1 Ismail, N. A. M., Xu, M. X., Wood, M., & Welch, C. (2013). To share or not to share? Research-knowledge sharing in higher education institution: preliminary results. *International Journal of Information Technology and Management, 12*(3-4), 169-188. Lee, C. K., Foo, S., Chaudhry, A. S., & Hawamdeh, S. (2004, August). Developing a theory of voluntary, informal, knowledge sharing. In *Proceedings of the 4th International Conference on Knowledge, Culture and Change in Organisations, London* (pp. 3-6). Items # 2 & 4 Chmielecki, M. (2013). Knowledge sharing among faculty–Qualitative research findings from Polish universities. *International Journal of Contemporary Management, 2013*(Numer 12 (3)).

Tan, C. N. L. (2016). Enhancing knowledge sharing and research collaboration among academics: the role of knowledge management. *Higher education*, *71*(4), 525-556.

Item # 3
Cheng, M. Y., Ho, J. S. Y., & Lau, P. M. (2009). Knowledge sharing in academic institutions: A study of multimedia university Malaysia. *Electronic Journal of Knowledge Management*, *7*(3).

Wah, C. Y., Menkhoff, T., Loh, B., & Evers, H. D. (2007). Social capital and knowledge sharing in knowledge-based organizations: An empirical study. *International Journal of Knowledge Management (IJKM)*, *3*(1), 29-48.

Item # 4
Sohail, M. S., & Daud, S. (2009). Knowledge sharing in higher education institutions: Perspectives from Malaysia. *Vine*, *39*(2), 125-142.

II. Individual Communicative Disposition

A. Communication self-efficacy

1. I am confident in my written and oral ability to communicate knowledge that other academics in my school consider valuable.
2. I have the expertise required to communicate valuable knowledge to academics in my school.
2. It does make a difference when I communicate my knowledge with other academics in my school.
4. I can communicate more valuable knowledge than most of the academics in my school.

Developed based on the work of Tan, C. N. L. (2016). Enhancing knowledge sharing and research collaboration among academics: the role of knowledge management. *Higher education*, *71*(4), 525-556.

B. Perceived value of message (message is knowledge, particularly in research)

1. I am able to meet my task objectives because of my knowledge

Developed based on the work of Ford, D. P., & Staples, D. S. (2005, January).

2. I am able to help meet the challenges of my job because of my knowledge 3. I am able to work more efficiently because of my knowledge 4. I am better at what I do because of my knowledge	Perceived value of knowledge: Shall I give you my gem, my coal?. In *System Sciences, 2005. HICSS'05. Proceedings of the 38th Annual Hawaii International Conference on* (pp. 247a-247a). IEEE.
C. Anticipated reciprocal relationship	
1. I strengthen ties between them and myself when I communicate my knowledge with other academics here in our school 2. I expand the scope of my association when I communicate my knowledge with other academics here in our school 3. I expect to receive knowledge in return when I communicate my knowledge with academics here in our school 4. I believe that my future requests for knowledge will be answered when I communicate my knowledge with academics here in our school	**Developed based on the work of** Tan, C. N. L. (2016). Enhancing knowledge sharing and research collaboration among academics: the role of knowledge management. *Higher education, 71*(4), 525-556.
III. Knowledge Sharing Attitude	
1. Sharing of knowledge enhances the reputation of an educator. 2. Sharing of knowledge is essential in today's competitive environment. 3. Sharing of knowledge enhances the reputation of the institution. 4. Sharing of knowledge amongst educators should be encouraged at the institutional level. 5. Sharing of knowledge is in line with the academic tradition. 6. Sharing of knowledge leads to professional development and better performance. 7. Sharing of knowledge leads to innovation in pedagogy. 8. Sharing of knowledge enhances the effectiveness and efficiency of educators.	**Developed based on the work of** Panda, S., & Santosh, S. (2017). Faculty Perception of Openness and Attitude to Open Sharing at the Indian National Open University. *International Review of Research in Open and Distributed Learning, 18*(7).

APPENDIX C

Invitation to participate in a research study

13 September 2018

Dear Colleague,

My name is Melanie D. Bacuño and I am communicating to you today as a doctoral student at University of the Philippines Open University. In partial fulfillment of the requirements for the Doctor of Communication degree, I am conducting a study focused on knowledge sharing as communication among faculty members in higher education. I request your participation in my study entitled "Knowledge Sharing as Communication: Exploring Academics' Communicative Disposition, Cognitive Dissonance, and Knowledge Sharing Attitude."

The academe is considered a knowledge intensive industry where knowledge generation and knowledge sharing is highly expected. However, despite the belief that education is sharing, wherein knowledge should be made available to others, the propensity among academics to keep the knowledge is a reality as supported by the findings of several studies on knowledge sharing in higher education. This holds true including in the context-specific research knowledge.

This study looks into the relationships of individual communicative disposition, importance of knowledge sharing, and knowledge sharing attitude. It will frame future discussions on knowledge management and communication policy and practice implications.

Your participation in this study will consist of 20 to 25 minutes of answering the survey questionnaire, which has four main parts.

I assure you that all reasonable steps will be taken to maintain confidentiality and to safeguard your identity as a study participant.

Thank you in advance for considering participation in this research.

Sincerely,

Melanie D. Bacuño
Doctoral Candidate
University of the Philippines Open University
Faculty of Information and Communication Studies

You will be given a copy of this form for your personal record.

Statement of Consent:

I have read the information about The Interplay of Individual Communicative Dispositions and Cognitive Dissonance in Knowledge Sharing as Communication Among Academics study and understand the conditions of my participation. I consent to participate in this study.

Participant's Name: _____Researcher's Name: _____

Participant's Signature: _____Researcher's Signature: _____

Date: _____

APPENDIX D

Research instrument

KS as Communication: ICD and KSA Questionnaire

This *KS as Communication: ICD and KSA Questionnaire* is an instrument for the research study on knowledge sharing as communication with respect to the relationship between individual communicative disposition and knowledge sharing attitude among academics. As a faculty who has involvement in research activities, your response in each item below is invaluable in framing future discussions on knowledge management and communication policies and practices. For your reference, operational definition of key terms is provided.

- Knowledge refers to research knowledge, which include but not limited to research idea, proposal, design, methodology and result.
- Knowledge sharing is the individual sharing and seeking of tacit (know-how, not easily codifiable like linguistic competence in articulating a research idea) and explicit (readily articulated, codifiable like research result) knowledge to others like a technical reviewer of a research journal publication, a participant or a fellow presenter in the same conference or seminar, a fellow faculty in the same meeting or assembly, or a colleague you may be having a conversation with while in the hallway.

I. Meaning of Knowledge Sharing as Communication

Based on actual research practices, please write down your ideas in connection with what knowledge sharing as communication means to you.

II. Importance of Knowledge Sharing

This section will evaluate the importance of each of the cognitions about knowledge sharing in order to describe the underlying experience of cognitive dissonance. Please select your response for each construct by encircling the number that represents your answer based on the 7-point Likert scale where:

1 – Not at all important
2 – Very unimportant
3 – Somewhat unimportant
4 – Neither important nor unimportant
5 – Somewhat important
6 – Very Important
7 – Extremely important

A. I uphold the belief that **'education is sharing'** because of factors like

1.	The idea of knowledge as a public good	1	2	3	4	5	6	7
2.	Providing learning resources freely and openly	1	2	3	4	5	6	7
3.	The use of collaborative pedagogical approaches in teaching and learning	1	2	3	4	5	6	7
4.	Reaching a wider audience through the use of communication technologies	1	2	3	4	5	6	7

B. **'I tend to withhold research knowledge '** because of factors related to

1.	Time	1	2	3	4	5	6	7
2.	Trust	1	2	3	4	5	6	7
3.	Rewards and incentives	1	2	3	4	5	6	7
4.	Work culture	1	2	3	4	5	6	7

III. Individual Communicative Disposition

An individual's communicative disposition determines how well one communicates or shares knowledge. Your communicative disposition in terms of communication self-efficacy, perceived value of message, and anticipated reciprocal relationship will be assessed in this part. Please select your response for each construct by encircling the number that represents your answer based on the 7-point Likert scale where:

1 – Strongly disagree
2 – Disagree
3 – Somewhat disagree
4 – Neither agree nor disagree
5 – Somewhat agree
6 – Agree
7 – Strongly agree

A. Communication self-efficacy

1.	I am confident in my written and oral ability to communicate knowledge that other academics in my school consider valuable.	1	2	3	4	5	6	7
2.	I have the expertise required to communicate valuable knowledge to academics in my school.	1	2	3	4	5	6	7
2.	It does make a difference when I communicate my knowledge with other academics in my school.	1	2	3	4	5	6	7
4.	I can communicate more valuable knowledge than most of the academics in my school.	1	2	3	4	5	6	7

B. Perceived value of message (message refers to research knowledge)

1.	I am able to meet my task objectives because of my knowledge.	1	2	3	4	5	6	7
2.	I am able to help meet the challenges of my job because of my knowledge.	1	2	3	4	5	6	7
3.	I am able to work more efficiently because of my knowledge.	1	2	3	4	5	6	7
4.	I am better at what I do because of my knowledge.	1	2	3	4	5	6	7

C. Anticipated reciprocal relationship

1.	I strengthen ties between them and myself when I communicate my knowledge with other academics here in our school.	1	2	3	4	5	6	7
2.	I expand the scope of my association when I communicate my knowledge with other academics here in our school	1	2	3	4	5	6	7
3.	I expect to receive knowledge in return when I communicate my knowledge with academics here in our school.	1	2	3	4	5	6	7
4.	I believe that my future requests for knowledge will be answered when I communicate my knowledge with academics here in our school.	1	2	3	4	5	6	7

IV. Knowledge Sharing Attitude

The items below will determine your attitude towards knowledge sharing. Please select your response for each construct by encircling the number that represents your answer based on the 7-point Likert scale where:

1 – Strongly disagree
2 – Disagree
3 – Somewhat disagree
4 – Neither agree or disagree
5 – Somewhat agree
6 – Agree
7 – Strongly agree

1.	Sharing of knowledge enhances the reputation of an educator.	1	2	3	4	5	6	7
2.	Sharing of knowledge is essential in today's competitive environment.	1	2	3	4	5	6	7
3.	Sharing of knowledge enhances the reputation of the institution.	1	2	3	4	5	6	7
4.	Sharing of knowledge amongst educators should be encouraged at the institutional level.	1	2	3	4	5	6	7
5.	Sharing of knowledge is in line with the academic tradition.	1	2	3	4	5	6	7
6.	Sharing of knowledge leads to professional development and better performance.	1	2	3	4	5	6	7
7.	Sharing of knowledge leads to innovation in pedagogy.	1	2	3	4	5	6	7
8.	Sharing of knowledge enhances the effectiveness and efficiency of the educators.	1	2	3	4	5	6	7

V. General Demographic Information

Please check on the item that corresponds to your answer.

Age:
____ above 60
____ 51 to 60
____ 41 to 50
____ 31 to 40
____ 30 and below

Years in service in CNSC:
____ more than 30
____ 21 to 30
____ 11 to 20
____ 5 to 10
____ less than 5

Academic Rank:
____ Professor
____ Associate Professor
____ Assistant Professor
____ Instructor

Highest Degree Attained
____ Doctorate Degree
____ Master's Degree
____ Bachelor's Degree

###

APPENDIX E

Average Weighted Mean for Each Construct

Variables		Average Weighted Mean
Cognition A	1	5.95
	2	5.95
	3	6.23
	4	6.41
Cognition B	1	5.50
	2	5.50
	3	5.08
	4	5.51
CSE	1	5.97
	2	5.97
	3	5.49
	4	5.31
PVM	1	6.10
	2	6.13
	3	6.26
	4	6.21
ARR	1	5.85
	2	5.82
	3	5.51
	4	5.72
KSA	1	6.46
	2	6.33
	3	6.44
	4	6.46
	5	6.14
	6	6.62
	7	6.44
	8	6.36

APPENDIX F

Computation of Pearson Correlation Coefficient rho, p-value for t-distribution and decision for Communication Self-Efficacy and Importance of Knowledge Sharing

Pearson Moment Correlation

no.	code	x-test	y-test	x^2	y^2	xy
1.	00001	7	7	49	49	49
2.	00002	4.63	6	21.4369	36	27.78
3.	00003	6.38	6.25	40.7044	39.0625	39.875
4.	00004	6	5.75	36	33.0625	34.5
5.	00005	6.13	5.75	37.5769	33.0625	35.2475
6.	00006	5	5	25	25	25
7.	00007	6	6	36	36	36
8.	00008	5.63	5.25	31.6969	27.5625	29.5575
9.	00009	5.75	6	33.0625	36	34.5
10.	00010	6.4	6.5	40.96	42.25	41.6
11.	00011	5.5	5.5	30.25	30.25	30.25
12	00012	5.75	5.5	33.0625	30.25	31.625
Total		225.37	224.50	1,317.41	1,308.75	1,306.23

new | compute | cor table | t table | decision | scatter plot | export | Close

$$r_{xy} = \frac{n\ \Sigma xy - \Sigma x\ \Sigma y}{\sqrt{[n\ \Sigma x^2 - (\Sigma x)^2]\,[n\ \Sigma y^2 - (\Sigma y)^2]}}$$

= 0.57 r^2 = 0.32

$$t = \frac{r}{\sqrt{\frac{1 - r^2}{n - 2}}}$$

= 4.180

0.05 two tails

n = 39

υ = 37

p-value for t-distribution

$$f(x) = \frac{\Gamma\left[\frac{\upsilon+1}{2}\right]}{\Gamma\left[\frac{\upsilon}{2}\right]\sqrt{\pi\upsilon}}\left(1+\frac{x^2}{2}\right)^{-\frac{\upsilon+1}{2}}$$

x = 4.18 υ = 37

ρ_2 = 0.000 ρ_1 = 0.000

computed t-value

degree of freedom

compute | close

Decision

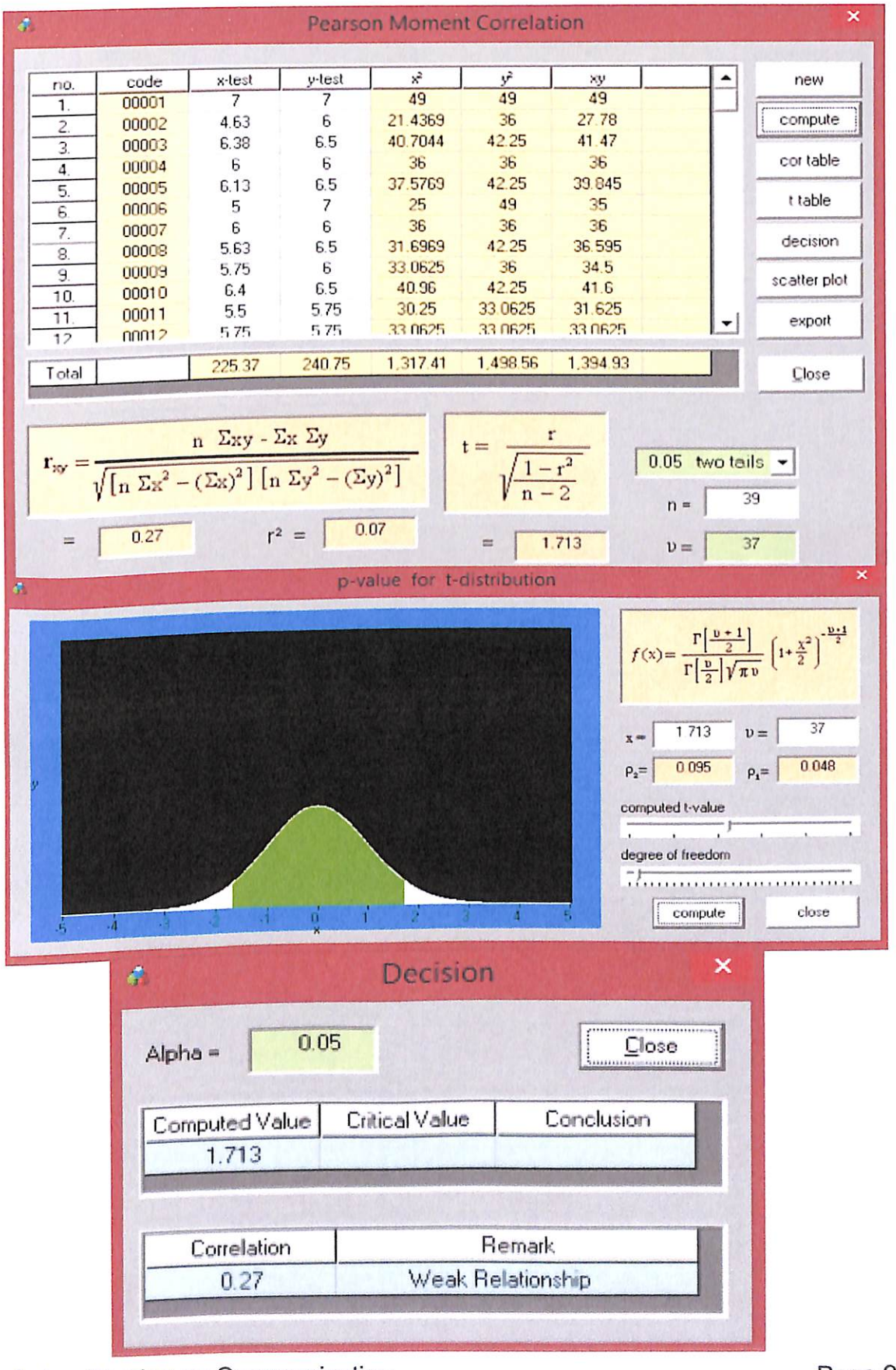
Alpha = 0.05 | Close

Computed Value	Critical Value	Conclusion
4.180		

Correlation	Remark
0.57	Moderate Relationship

APPENDIX G

Computation of Pearson Correlation Coefficient rho, p-value for t-distribution and decision for Perceived Value of Message and Importance of Knowledge Sharing



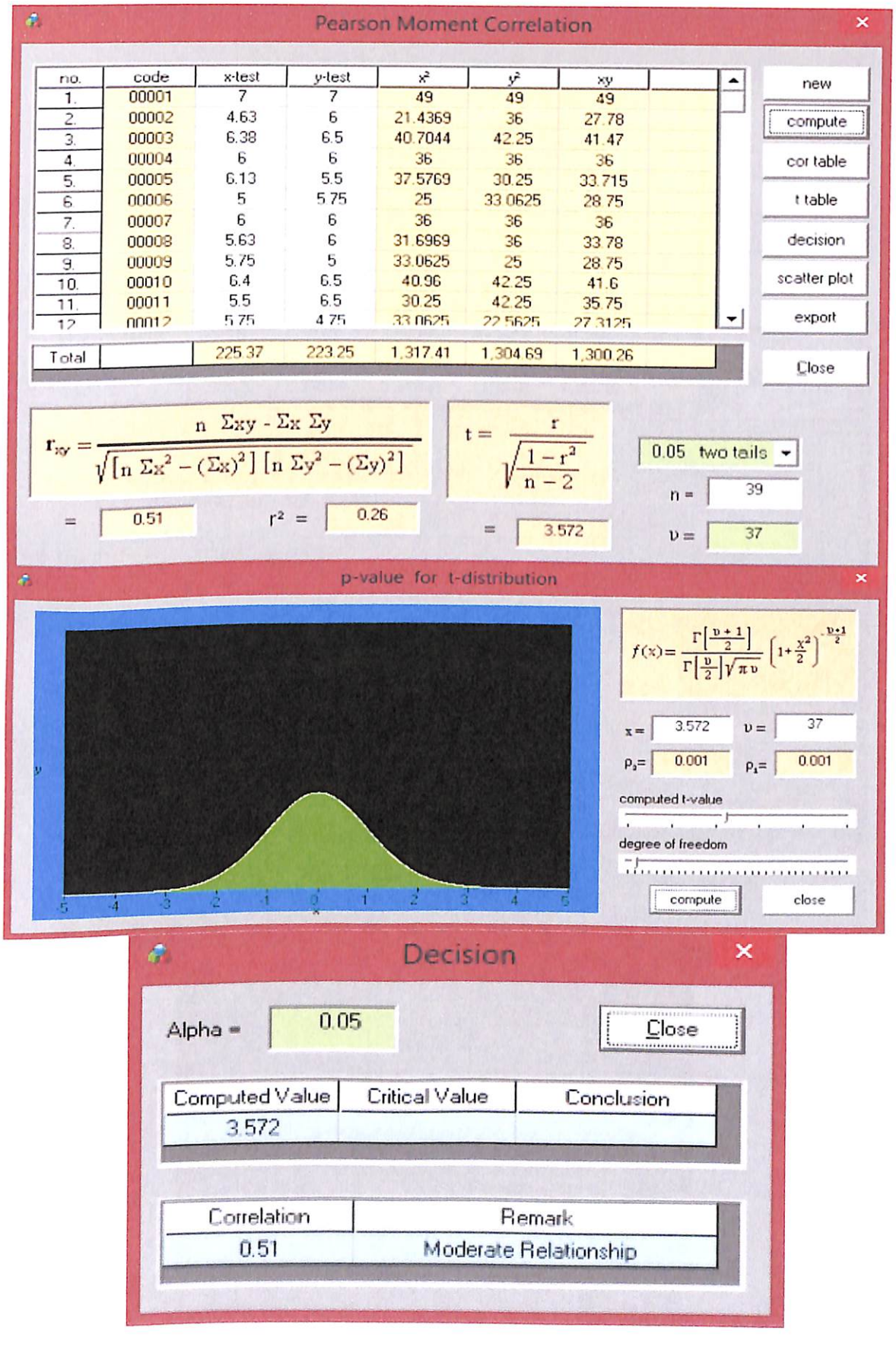
no.	code	x-test	y-test	x^2	y^2	xy
1.	00001	7	7	49	49	49
2.	00002	4.63	6	21.4369	36	27.78
3.	00003	6.38	6.5	40.7044	42.25	41.47
4.	00004	6	6	36	36	36
5.	00005	6.13	6.5	37.5769	42.25	39.845
6.	00006	5	7	25	49	35
7.	00007	6	6	36	36	36
8.	00008	5.63	6.5	31.6969	42.25	36.595
9.	00009	5.75	6	33.0625	36	34.5
10.	00010	6.4	6.5	40.96	42.25	41.6
11.	00011	5.5	5.75	30.25	33.0625	31.625
12	00012	5.75	5.75	33.0625	33.0625	33.0625
Total		225.37	240.75	1,317.41	1,498.56	1,394.93

$$r_{xy} = \frac{n\ \Sigma xy - \Sigma x\ \Sigma y}{\sqrt{[n\ \Sigma x^2 - (\Sigma x)^2]\ [n\ \Sigma y^2 - (\Sigma y)^2]}} \qquad t = \frac{r}{\sqrt{\frac{1-r^2}{n-2}}}$$

$$f(x) = \frac{\Gamma\left[\frac{\upsilon+1}{2}\right]}{\Gamma\left[\frac{\upsilon}{2}\right]\sqrt{\pi\upsilon}}\left(1+\frac{x^2}{2}\right)^{-\frac{\upsilon+1}{2}}$$

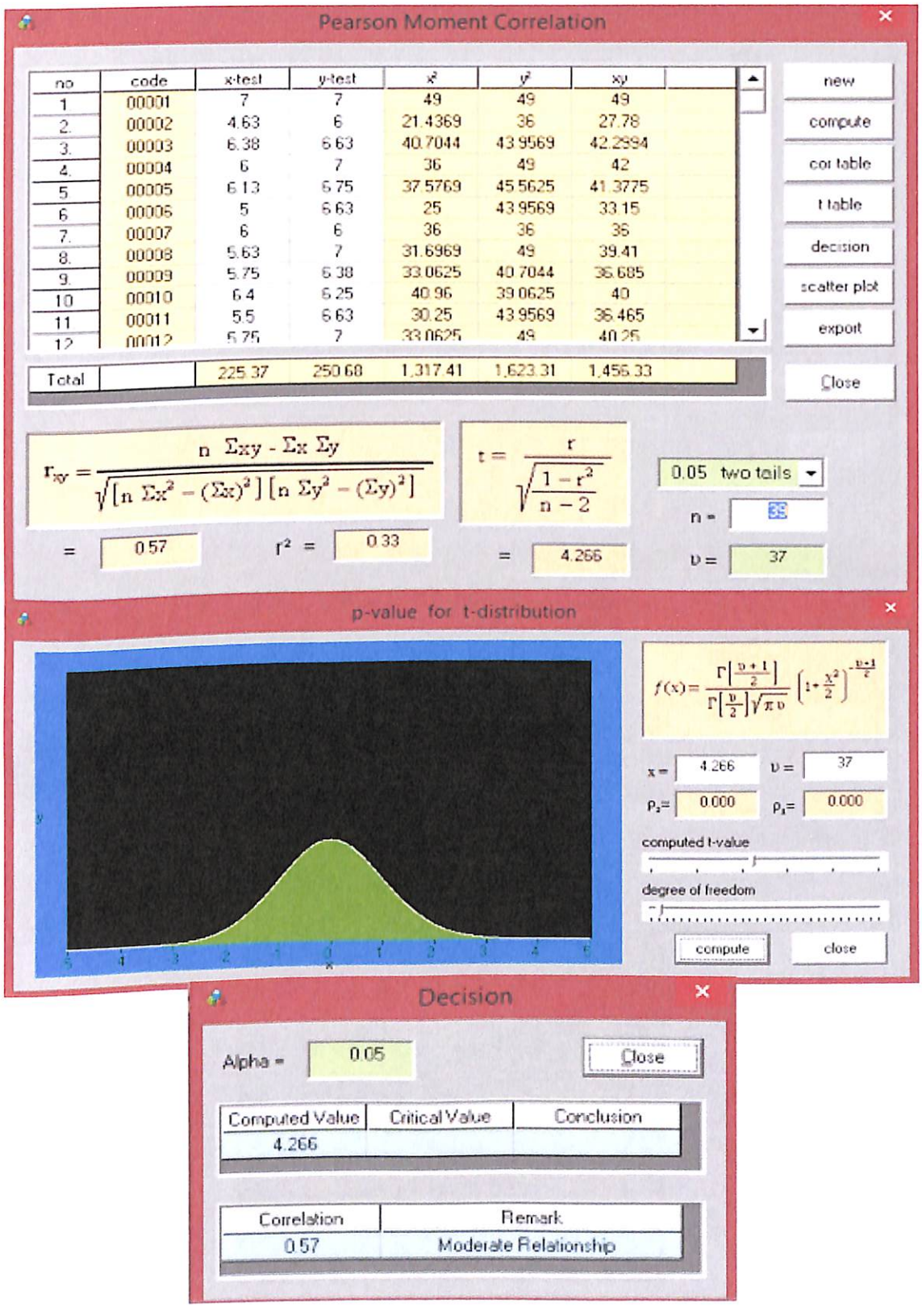
APPENDIX H

Computation of Pearson Correlation Coefficient rho, p-value for t-distribution and decision for Anticipated Reciprocal Relationship and Importance of Knowledge Sharing



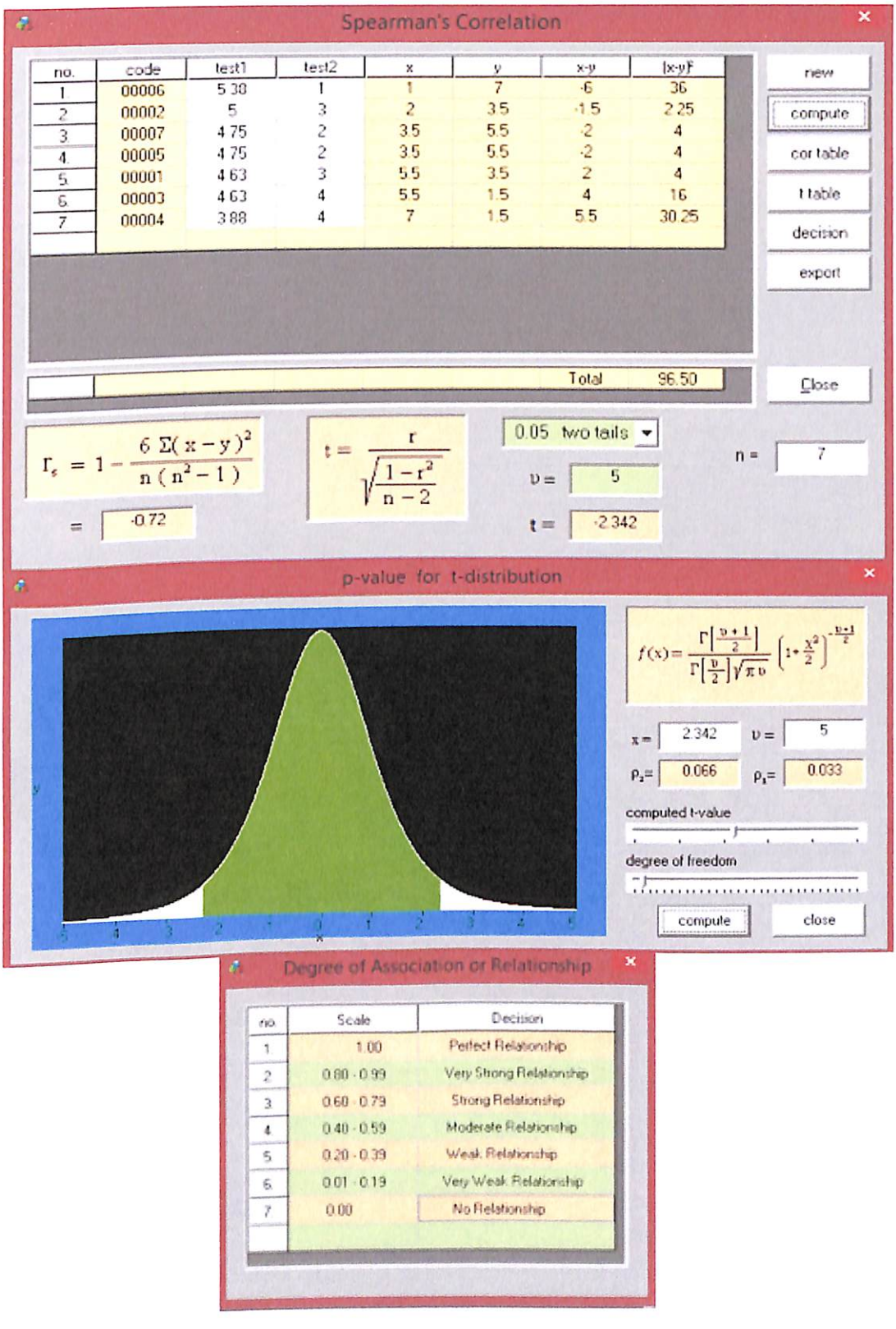
APPENDIX I

Computation of Pearson Correlation Coefficient rho, p-value for t-distribution and decision for Importance of Knowledge Sharing and Knowledge Sharing Attitude



APPENDIX J

Computation of Spearman Correlation Coefficient rho, p-value for t-distribution and decision for Importance of Knowledge Sharing and Age Profile of Academics

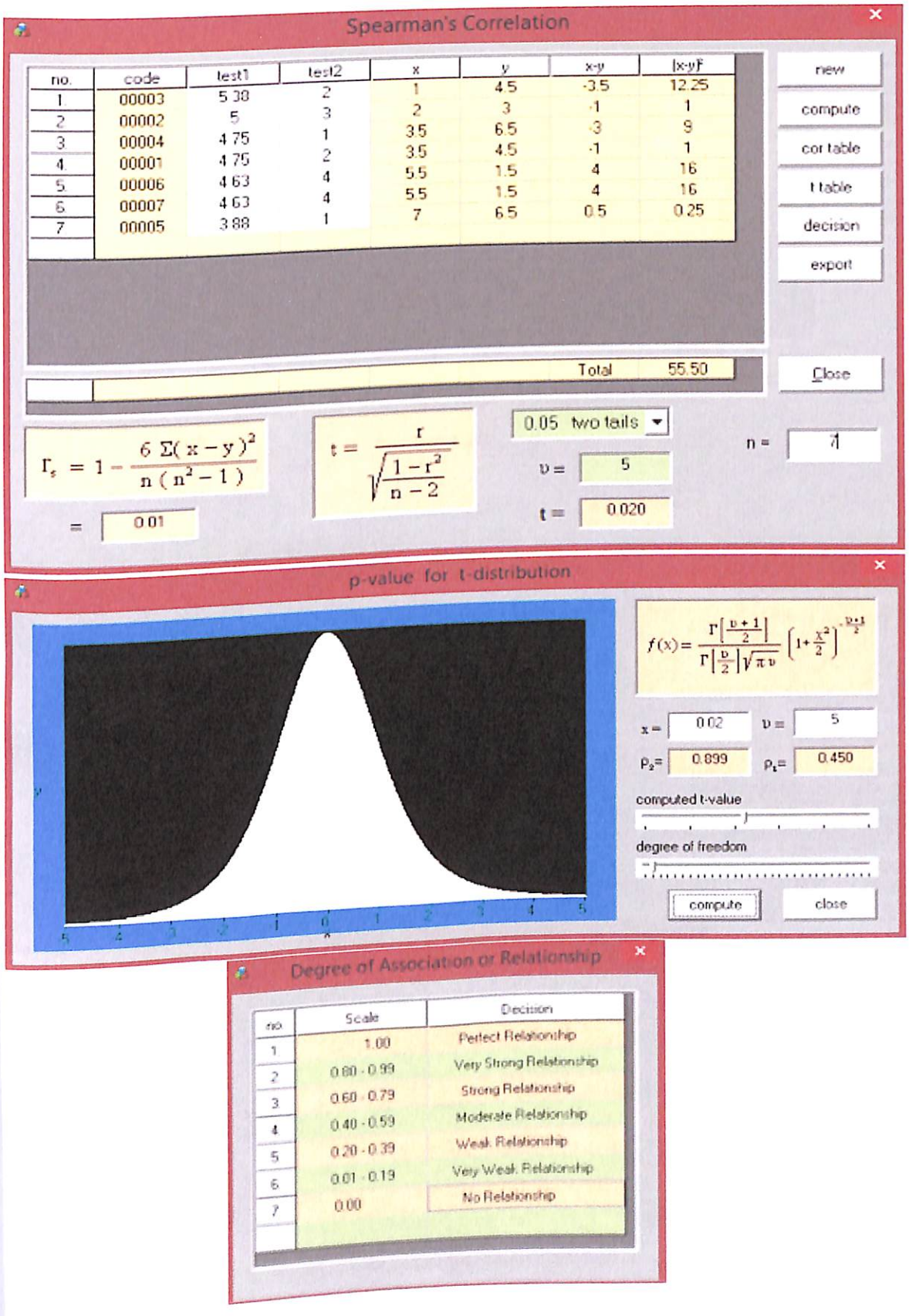


no.	code	test1	test2	x	y	x-y	|x-y|²
1	00006	5.38	1	1	7	-6	36
2	00002	5	3	2	3.5	-1.5	2.25
3	00007	4.75	2	3.5	5.5	-2	4
4	00005	4.75	2	3.5	5.5	-2	4
5	00001	4.63	3	5.5	3.5	2	4
6	00003	4.63	4	5.5	1.5	4	16
7	00004	3.88	4	7	1.5	5.5	30.25

no	Scale	Decision
1	1.00	Perfect Relationship
2	0.80 - 0.99	Very Strong Relationship
3	0.60 - 0.79	Strong Relationship
4	0.40 - 0.59	Moderate Relationship
5	0.20 - 0.39	Weak Relationship
6	0.01 - 0.19	Very Weak Relationship
7	0.00	No Relationship

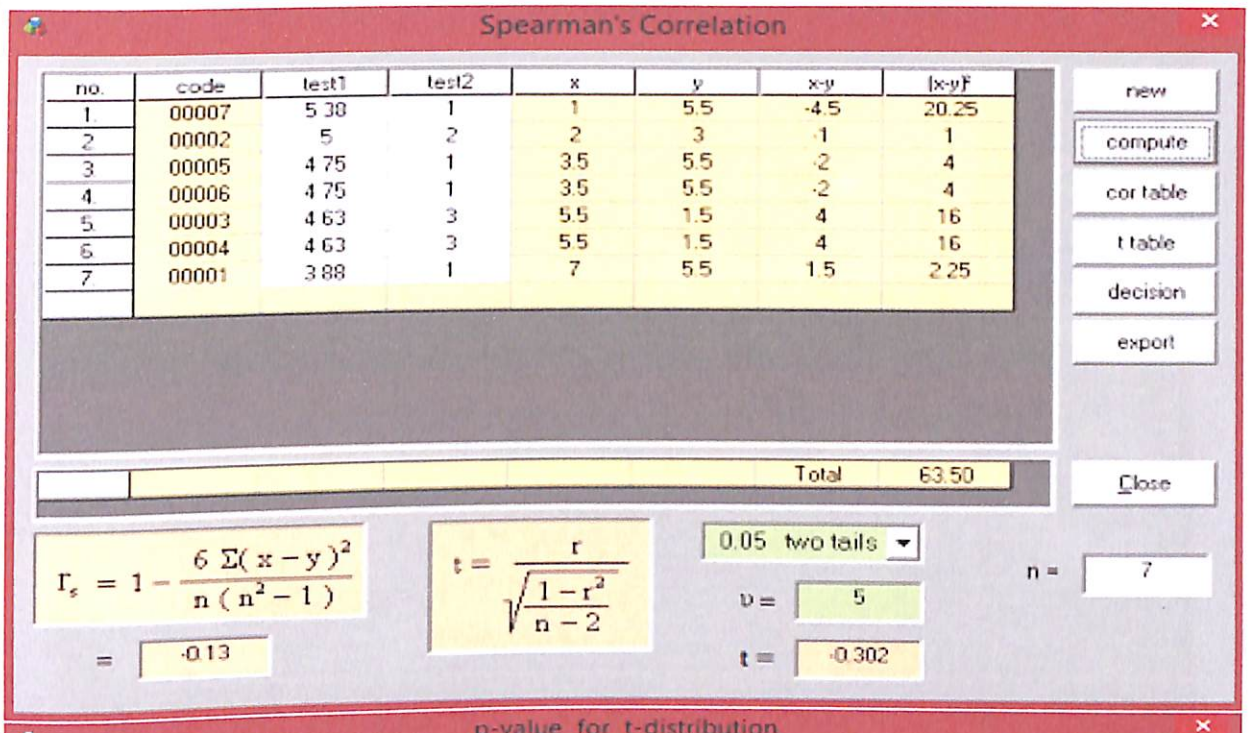
APPENDIX K

Computation of Spearman CorrelationCoefficient rho and p-value for t-distribution for Importance of Knowledge Sharing and Years in Service Profile of Academics

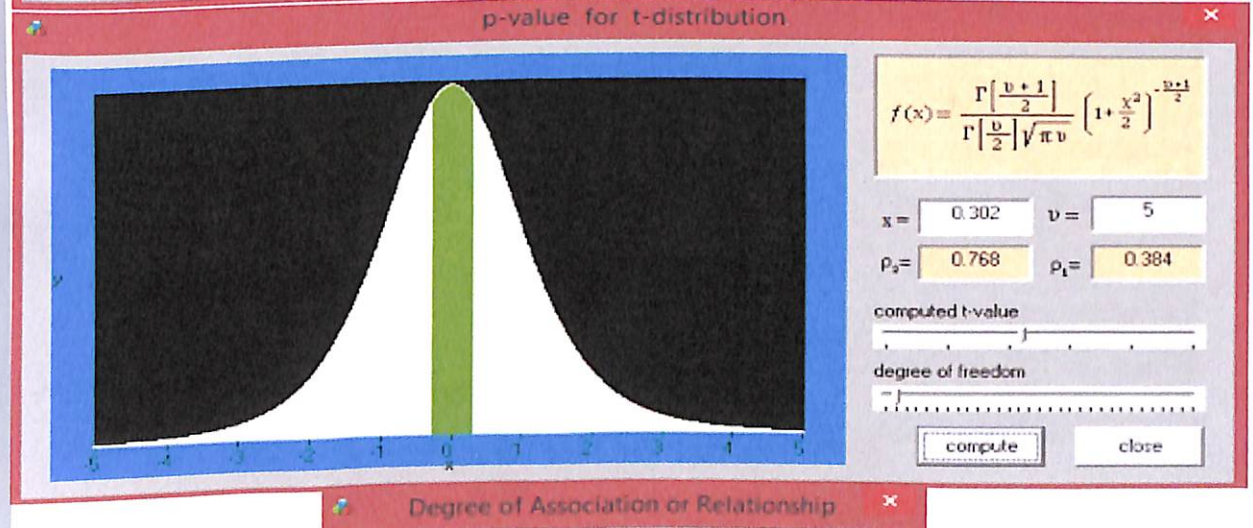


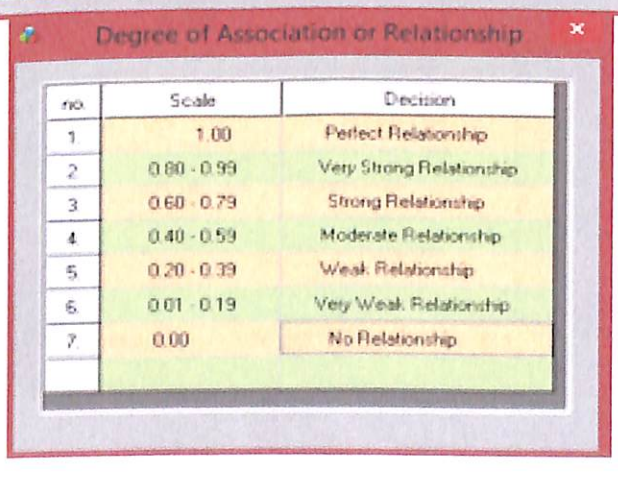
APPENDIX L

Computation of Spearman Correlation Coefficient rho and p-value for t-distribution for Importance of Knowledge Sharing and Academic Rank Profile of Academics



no.	code	test1	test2	x	y	x-y	|x-y|^2
1	00007	5.38	1	1	5.5	-4.5	20.25
2	00002	5	2	2	3	-1	1
3	00005	4.75	1	3.5	5.5	-2	4
4	00006	4.75	1	3.5	5.5	-2	4
5	00003	4.63	3	5.5	1.5	4	16
6	00004	4.63	3	5.5	1.5	4	16
7	00001	3.88	1	7	5.5	1.5	2.25





no	Scale	Decision
1	1.00	Perfect Relationship
2	0.80 - 0.99	Very Strong Relationship
3	0.60 - 0.79	Strong Relationship
4	0.40 - 0.59	Moderate Relationship
5	0.20 - 0.39	Weak Relationship
6	0.01 - 0.19	Very Weak Relationship
7	0.00	No Relationship

APPENDIX M

Computation of Spearman Correlation Coefficient rho and p-value for t-distribution for Importance of Knowledge Sharing and Highest Degree Attained Profile of Academics