

# Exploring How Environmental and Personal Factors Influence Knowledge Sharing Behaviour Leads to Innovative Work Behaviour in Vietnamese Higher Education Institutions

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## Abstract

The Vietnamese Government has been struggling to build a higher education system that is innovative to the requests of national knowledge-based development. It is essential to explore knowledge sharing behaviour (KSB) from environmental and individual perspectives. It can help to contribute to innovative work behaviour (IWB) towards knowledge-based development initiatives, in particular regarding the phenomenon of knowledge sharing (KS) in Vietnamese higher education institutions (HEIs). The aim of this research-in-progress is to propose a research model based on social cognitive theory (SCT) that comprises environmental factors (subjective norms, trust), personal factors (knowledge self-efficacy, rewards, reciprocity), KSB and IWB. We advance to conduct a survey to examine our proposed conceptual model. It is expected that this research will contribute to the deeper understanding of the effects of personal and environmental factors and KSB on IWB within Vietnamese HEIs.

**Keywords:** Knowledge sharing, Innovative work behaviour, Social cognitive theory, Vietnamese higher education

## 1. Introduction

The aim of this paper is to investigate how environmental and personal factors influence knowledge sharing (KS) can facilitate or impede innovative work behaviour (IWB) by using social cognitive theory (SCT)-based model. By studying the relationships between critical KS factors, knowledge sharing behaviour (KSB) and IWB, this research-in-progress examines how Vietnamese HEIs can foster a KS culture that will support their employees' IWB.

IWB can be defined as “the intentional creation, introduction and application of new ideas (within a work role, group or organization)” to meet new challenges in complex environments [16, 17], [33]. It is widely stated to be vital for the productive functioning and long-lived sustainable development of organisations [3], [16] which depend on their employees' capability to innovate methods, goods, services and operations [1]. Furthermore, IWB helps to find a better way to do or make something new that others want to use or ways to organise resources better [39]. Thus, it is essential to create a culture where IWB is practised throughout the organisation and every person generates, promotes, and uses knowledge in imaginative ways [40].

An organisation can successfully promote IWBs by directly integrating knowledge in its business plan, and promoting individuals' attitudes and behaviours consistent with KS as well [24]. Nevertheless, KS has not met many organisations' expectation. It has been argued that individuals believe that their knowledge is power and valuable, therefore, sharing knowledge is generally unusual [10]; hoarding knowledge is the real propensity [18], [50]. Moreover, knowledge management (KM) has only highlighted on the technology aspect in many organisations, in particular technology infrastructures [18], [47]. It is not surprisingly, KS is problem for organizations with the existing of information systems [41], [53, 54]. Finally, several studies have indicated that KM often fails in encouraging KS practices because of it ignores the importance of the willingness of KS [54]. Undoubtedly, the biggest challenge in promoting IWB is the individual willingness to share knowledge with others. There have been two issues are involved in this respect [18], [36]. One is personal perceptions, which are based on self-efficacy and outcome expectations [18], [36]. The other is social influences based on trust and subjective norms [9], [18], [36]. Investigating the personal perceptions [9], [28] and the influence of the social environment on KSB lead to IWB [2], [9], [37] would help both and practitioners get insights into how to encourage KS in teams, groups or the organisation in order to facilitate IWB. In order to achieve this goal, this paper will propose an integrated research model based on social cognitive theory (SCT).

SCT has been widely used in the literature of information systems for identifying the individual behaviour [18], [42]. SCT states that an action that has personal perception in a social environment would be taken by a person. A personal perception to behave in a certain way has some cognitive factors. One is self-efficacy or the belief is a potential significant factor impacting the decision of sharing knowledge [8]. Other important factor has significant influence on individual KS decisions is outcome expectations that are related to rewards systems and reciprocal benefits [18], [23], [36]. Furthermore, subjective norm shows individual's feeling about the social pressure they feel about a given behaviour surrounding them. Employees having positive subjective norms towards given behaviours than the concerned behaviour intentions are more likely to be positive in KS. Finally, trust has also been identified as an important factor influencing KS [18], [36].

To sum up, then, it is an imperative need to take into account the influences of environmental and personal factors on KSB in order to improve IWB in the context of HEIs in Vietnam. This paper will contribute to the literature of KS by investigating and answering the two main research questions as follows: (1) How do environmental and personal factors impact on KSB? (2) How does the KSB impact individuals' IWB?

The organisation of this paper is as follows. The next section present the literature review, followed by describing the research model development. Then, the sample and data collection methods, questionnaire design and data analysis are described in the proposed research method section. Finally, the conclusion is presented.

## **2. Literature Review**

### **2.1. Innovative Work Behaviour**

In this current study, we intend to examine the relationships between environmental and individual factors and KSB lead to IWB in higher education context in Vietnam, using a model including IWB factor derived from Janssen [16]. IWB comprises three components: idea creation, idea promotion, and idea implementation. The first step of the individual innovation is to create idea that is generation of new and valuable ideas in any field [3], [16], [19]. Second, potential colleagues or partners will be promoted the idea which occurs when an individual has created an idea and engages in social activities to get supporter surrounding an idea [16]. Finally, the innovation process involves idea application by developing a model or innovative prototype that is likely to be tried and utilized in teams, groups or the whole organisation [19]. Basic innovations are usually accomplished by individuals, whilst the

completion of more complicated innovations often needs teamwork relies upon a diversity of knowledge, ability, and work roles [16], [19]. With the belief that individual IWB have positively effects on work outcomes, several researchers have dedicated increasing attention to factors that potentially foster IWB such as KS, organizational climate and IWB [37], KS and IWB [28], KS determinants, behaviors, and IWB [2], and organizational climate for innovation and organizational performance and IWB [34]. However, the relationship between KSP and IWB is still largely unexamined, especially in non-Western countries [34] in higher education institutions

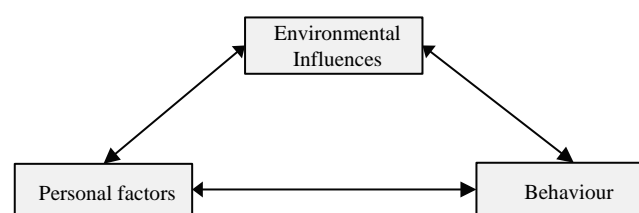
## 2.2. Knowledge Sharing Behaviour

Knowledge is a significant organisational resource. KS contributes to developing competitive advantages for organisations in complex environments, such as the improvement of intellectual capital, by encouraging the exchange and creation of knowledge within an organisation. This is because knowledge is the key factor for achieving continuous innovation at both individual and organisational levels. It is also examined a closely related factor for the progress of any individual or organisation, hence it is an essential indicator to be studied in the KS on individual IWB in HEIs. KSB can be defined as the process involving the exchange of knowledge between individuals and groups of people [10]. The authors develop the measurement of KSB by the frequency of knowledge dissemination (giving or presenting knowledge to potential receivers) that can also be beneficial for an organisation in general, a higher education institution in particular. In turn, KS is relied upon knowledge management, which is a necessary activity in all businesses. Any KS practice occurring within organisations between its employees will always be based on both knowledge-giving and knowledge-receiving. Knowledge management is a broader term that caters to a wide range of topics, while KS is a specific focus area of knowledge management [14]. KS, when performed in conjunction with other aspects of the step-by-step process of knowledge management (creation, storage, sharing, and application) can fulfil a strategic necessity for organisations that wish to improve their capabilities and performance [21].

## 3. Theoretical Background and Research Model

In this study we are examining the influence of environmental and personal factors on KSB, using the proposed model based on Bandura's SCT [6] (see Fig. 1). In SCT model, environmental influences, personal factors, and behavior act as interactive relationships [52]. Bandura [5] explains the main concepts of SCT by the "triadic reciprocal causation" as follows:

- (1) Environmental influences that influence the personal capacity to successfully fulfill the behaviour;
- (2) Personal factors determine whether a person has low or high knowledge self-efficacy leads to his/her behaviour;
- (3) Behaviour is the response which a person gains after his/her performing a certain behaviour. This research focuses on the exploration of the role of the environmental and personal factors on individual behaviours. Table 1 presents the summary of the prior research models.

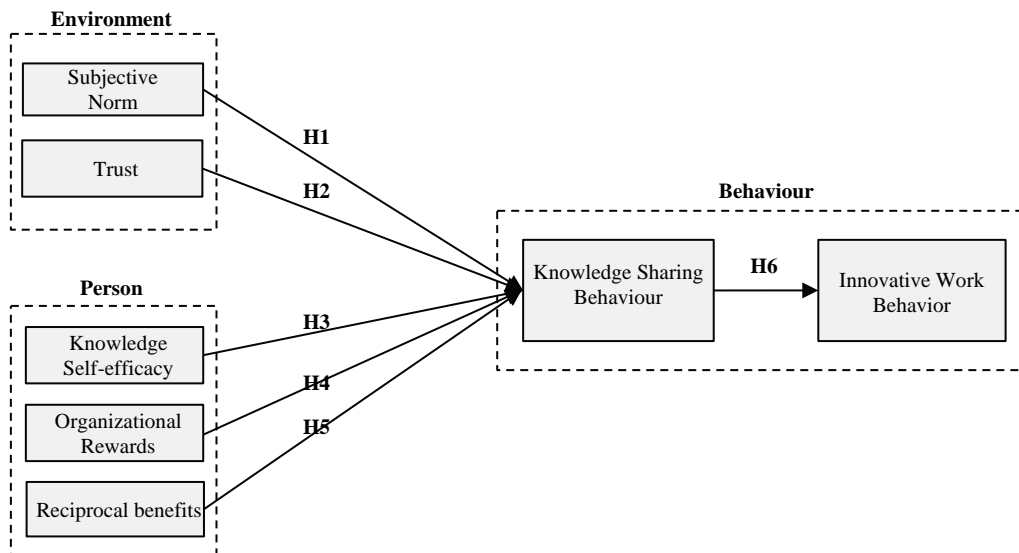


**Fig. 1.** The interactions between environment, person and behavior (Bandura's SCT [6]).

**Table 1:** Dimensions of Environmental and Individual Factors, KS and IWB across studies

Related Literature	Subjective Norms	Trust	Self-Efficacy	Reciprocity Rewards	KS	IWB
Hsu et al. [18]		✓	✓	✓	✓	
Lin et. al [54]		✓	✓			✓
Tsai & Cheng [49]			✓	✓	✓	
Janssen [16]				✓		✓
Dong et al. [11]	✓	✓		✓	✓	
Lin [24]			✓	✓	✓	
Othman [26]		✓		✓	✓	
Yu et al. [37]					✓	✓
Radaelli et al. [28]				✓	✓	✓
Akhavan et al. [2]	✓				✓	✓

The proposed conceptual model consists of four main constructs, including environmental factors, personal factors, KSB and IWB (Fig. 2). Each of these constructs and their sub-constructs will be described below.

**Fig. 2.** The proposed research model showing factors based on SCT

**Environmental factors:** The factors from the social environment dimension

- Subjective norms: The extent to which an individual perceives whether social pressure will influence the performance of KS behaviour [4].
- Trust: Refers to “The extent of belief in good behaviors, competence, and reliability of members with respect to sharing knowledge in the organisation” [30], [54]

**Personal factors:** The factors from the individual dimension

- Knowledge self-efficacy: The extent of confidence in employees’s ability to sharing knowledge that is important to the organisation [54].
- Organisational rewards: Refers to “The degree to which a reward system to share any new and creative ideas and effectiveness KS” [26].
- Reciprocal benefits: “Reciprocal benefit is a form of conditional benefit; that is, individual expect future benefits from his or her present actions” [22].

**Knowledge sharing behaviour:** The extent to which a person performs KS activities in the organisation [10], [54].

**Innovative work behaviour:** “The extent to which employees behave to create, promote, and implement new ideas in an group or organisation” [16].

### 3.1. Environmental Dimensions

- *Subjective norm and knowledge sharing behaviour*

According to Ajzen [4], the subjective norm is a social factor which can be defined as the degree to which one perceives social pressure to carry out or not to carry out a certain behaviour. Subjective norm has acquired significant empirical support as an import antecedent to behavioral [9], [32]. Hee [15] emphasised the impact of others who are important to the employee such as “close friends, relatives, colleagues, or business partners.”. Subjective norm shows personal emotion regarding the social pressure they perceive about given behaviors surrounding them. Also, employees having positive subjective norms lead to given behaviors than the concerned behavior intentions are more likely to be positive in KS. Therefore, we hypothesise that.

**H1:** Subjective norm has a positive effect on knowledge sharing behaviour

- *Trust and knowledge sharing behaviour*

Trust can be defined as “maintaining reciprocal faith in each other in terms of intention and behaviors” [30], [44]. It may encourage the exchange of knowledge to be substantive, influential, and open [30], [45], [46]. Trust affects KS decisions and with trust, a person becomes less willing to share knowledge with others [10], [54]. According to Nonaka [35] interpersonal trust is a key factor in teams, groups and organisations to establishing an environment for KS. Employees are more willing to engage into KS when they have a high level of trust in their relationships [30]. Thus, interpersonal trust increases individuals’ tendency to participate in KS practices [43]. Therefore, we hypothesise that:

**H2:** Trust has a positive effect on knowledge sharing behaviour

### 3.2. Individual Dimensions

- *Knowledge self-efficacy and knowledge sharing behaviour*

Knowledge self-efficacy is an individual’s judgment of his or her ability to organize and execute successful performance in everyday tasks [54]. The individual’s sense of self-efficacy is affected by the tendency of individuals to take actions such as level of problems, expressed interest, persistence and task effort [18]. Lin’s study shows that knowledge sharing contributions improve an organization’s performance if staff increase their willingness to donate and collect knowledge [24]. Accordingly:

**H3:** Knowledge self-efficacy has a positive effect on knowledge sharing behaviour

- *Organizational rewards and knowledge sharing behaviour*

According to Lin [23], from an extrinsic motivational aspect, a person’s behavior is driven by its perceived benefits and the values of the behaviour. Receiving organisational rewards or beneficial reciprocity are the main purposes of motivated behaviors [23], [29]. Providing incentives and rewards to motivate staff to contribute in knowledge sharing adoption are recommended [51]. Individuals who share their knowledge may improve team performance and consecutively increase the personal rewards received [7]. Incentives and rewards encourage staff to share knowledge [9]. Organizational rewards point out what the organizational values form individual behaviors [24]. Organisational rewards can vary according to the organization policies from monetary incentives (e.g. increased salary and bonuses) to non-monetary awards (e.g. promotion incentives and job security) [10], [24]. Therefore, we hypothesise that:

#### **H4.** Organisational rewards has a positive effect on knowledge sharing behaviour

- *Reciprocal benefits and knowledge sharing behaviour*

Reciprocal benefit is a form of conditional benefit; that is, the individual expects future benefits from his or her present actions. It means that an action is done in response to prior friendly behaviours [22]. Many researchers have conducted detailed analyses of reciprocity and indicated that it can be valuable to knowledge contributors as they anticipate future help from others [22]. Also, studies have investigated that reciprocity can yield an effective motivation to encourage KS and consequently establish long-term mutual cooperation [23]. Thus, people who expect reciprocity from other members through sharing their knowledge will share more useful and creative ideas and their satisfaction with the meeting will be higher KS intentions [22, 23]. Therefore, we hypothesise that:

#### **H5.** Reciprocal benefits has a positive effect on knowledge sharing behaviour

### **3.3. Knowledge Sharing and Innovative Work Behaviour**

It is clear that an employee's ability to transfer and utilise knowledge may encourage his or her level of individual innovation, for example, faster problem-solving capacity and improved rapid reaction to new challenges. Many academics highlighted the importance of KS to improve individual IWB [2], [28], [37]. Effective knowledge processes can create important organizational intellectual capital and intangible resources to improve performance [25]. For example, when the employee transfer tacit knowledge into explicit knowledge, the entire organization will benefit from it [12]. This shows that when organizations manage their knowledge assets better, the organization will then have a greater chance of better performance in both organizational and individual levels [12], [29]. This research expects that individual willingness to share knowledge with each others is likely to sustain IWB and thus contribute to better position the organisation with regard to long-term competitive advantage in complex environments. Therefore, we hypothesise that.

#### **H6:** Knowledge sharing behaviour positively impacts innovative work behaviour.

## **4. Proposed Research Method**

The sequential mixed-methods, including quantitative and qualitative methods, will be used to accomplish the research goal with the sample of academic staff in Vietnamese HEIs. The questionnaires will be conducted in stage one to collect the data from the study sample about their influencing factors that will then be used in the research framework. Based on that stage two will be undertaken by interviews to validate the quantitative results.

### *Sample and data collection*

After being developed from the reviewed literature, the comparability of the English and Vietnamese versions of the questionnaire will be double checked by two language experts (NAATI - the National Accreditation Authority for Translators and Interpreters). A total of 4 universities will be randomly selected from the list of 37 public universities in the north of Vietnam published by the Ministry of Education and Training. The questionnaire with a cover letter will be delivered to and collected from the participants by the administrative staff of respective departments before being returned in sealed envelopes to ensure voluntary participation and the anonymity of the participants.

### *Measures*

In this study, the existing measures from prior studies will be used for the questionnaire. All items used to operationalise constructs will be mainly adapted for use in the KS context in Vietnam. All items will be measured using a five-point Likert-type scale (ranging from 1 = never to 5 = always or 1 = strongly disagree to 5 = strongly agree). Table 2 describes the summary of measurement scales for the constructs of the proposed model.

**Table 2:** Summary of measurement scales for the constructs of the proposed model

<b>Factors</b>	<b>No. of Items</b>	<b>Sources</b>
Subjective norm	3	Bock et al. [9]; Ajzen [4]
Trust	6	Lin et al. [54]; Lee & Choi [30]
Knowledge self-efficacy	4	Lin [23]
Rewards	4	Lin [23]
Reciprocal benefits	3	Lin [23]
Knowledge sharing behaviour	5	Davenport & Prusak [10]; Lin et al. [54]
Innovative work behaviour	9	Janssen [16]

### *Data analysis*

We intend to analyse our data in two phases. For phase 1 (Quantitative data analysis), a multivariate statistical approach will be implemented to quantitatively analyse data collected from the questionnaires including descriptive data analysis to find if the data is ready to continue to the multivariate data analyses step (participants' profiles and data screening by studying normality, means, standard deviations and standard error of the mean), measurement scale analysis to capture the meaning of each model construct through an assessment of reliability and validity (Cronbach's alpha) addition to this, item-total correlations will be used to assess the extent to which a particular item belonged to its scale, the validity of the measurement by using Confirmatory Factor Analysis and Structural Equation Modelling to examine the causal relationships of the model [13]. We will use the Statistical Package for the Social Sciences (SPSS) (22.0) and Amos 22. For Phase 2 (Qualitative data analysis), data collected from interviews will be interpreted to validate the quantitative results as it provides a rich and in-depth investigation of the organisational context where KS happens [36].

## **5. Conclusion**

This work has explained the study-in-progress in exploring influence of knowledge sharing practices on innovative work behaviour (IWB) in Vietnamese higher education institutions context. The significant contributions will yield to both theory and practice. The contributions to the literature of knowledge management are as follows: (1) to deeper understand the impact of environmental (subjective norms, trust) and personal factors (knowledge self-efficacy, rewards, reciprocity) on knowledge sharing behaviour (KSB) and (2) explore and explain what are the effects of KSB in facilitating or impeding IWB. It will contribute to practitioners as two following aspects: (1) to help leaders and managers understand how environmental and personal factors can help facilitate or impede the KSB that occurs during the exchange of knowledge between individuals within teams, groups and/or the whole organisation and (2) to guide leaders and managers in building the appropriate policies in promoting KS environment in their organisation in order to improve IWB in Vietnamese HEIs which contributes to knowledge-based development initiatives.

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