Female Academics' Knowledge Sharing Behaviour in a Gender Non-Mixed Work Environment

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Abstract: Universities are keen to improve the opportunities for knowledge sharing (KS) amongst the academics who are their cornerstone, by improving the connections between them. Creating and disseminating knowledge are fundamental academic activities and beneficial to the university. However, the actual KS behaviours of academics may be constrained by numerous factors. Previous KS research has focused on factors influencing KS in business or academic environments that are gender-mixed, i.e., males and females work alongside each other in offices or campuses. This study is unusual and may be unique as it addresses KS behaviours in the gender non-mixed academic environment of Saudi Arabia's King Saud University. This University has entirely separate campuses for males and females, conforming to national gender-segregation laws. Using widely accepted constructs of the Theory of Planned Behaviour, the study will examine the impacts of individual (reputation, rewards and self-efficacy), organisational (culture, top management support, trust, social networks and vision and goals) and technological (information technology infrastructure, applications) factors on intention to share knowledge among female academics. Quantitative, via questionnaires, and qualitative, via interviews, data will be collected to test proposed hypotheses regarding barriers and inducements to KS intentions. The value of this research will be to increase our understanding of the factors affecting KS in universities, specifically among female academics, in an environment that has its own specificity and to make appropriate recommendations to enhance participation in KS activities.

Keywords: Female academics, Gender segregation, Higher education, Knowledge sharing (KS), Organisational culture, Saudi University

## 1.   Introduction, the Research Gaps

Knowledge management (KM) has been widely studied and is known to play an important role in the success of organisations (Beadles et al, 2005). Published research has focused mainly on the factors promoting or inhibiting KM and knowledge sharing (KS) in the public and commercial sectors (Hislop, 2013; Qureshi & Evans, 2005). Far fewer studies have explored KS in higher education (HE) environments. However, in HE, KS significantly affects performance, enhances innovation, and augments organisational knowledge (Charband & Navimipour, 2018). Academic staff are involved in KS when they teach, research, consult and publish, they are knowledge producers and disseminators, so better practices will develop better quality education and better organisational performance (Jolaee et al, 2014). HE organisations should, therefore, explore the ability and willingness of their members to engage in KS and emphasise the importance of spreading their knowledge and individual experiences (Kim & Lee, 2006; Jolaee et al, 2014). Many previous studies have, nevertheless, found that academics in HE institutions are idiosyncratic and unmotivated to share their knowledge, for various reasons, but often because of preoccupation with individual or discipline-orientated success, rather than the goals of their organisation (Tan, 2016; Fullwood & Rowley, 2017; Charband & Navimipour, 2018). Clearly there is a need to understand this issue and find evidentially based recommendations to ensure that such a valuable resource is fully engaged and contributing maximally to organisational goals.

Researchers have identified numerous barriers and inducements to the success of KS in academic environments and analysed them to greater or lesser extents (Howell & Annansingh, 2013; Fullwood & Rowley, 2017; Akosile & Olatokun, 2019; Hosen et al, 2022). Most studies are selective about the factors they examine for practical reasons, because the research reflects a particular focus, or because it addresses specific research gaps.

Research in this field to date has all been conducted in gender-mixed environments. Gender is often recorded as a demographic, useful to eliminate "noise" from results. I.e. any gender asymmetries in the results are treated as moderating the factors under consideration, with little analysis of their intrinsic value. This is because conditions in gender-mixed work environments are largely assumed to be equivalent for men and women. Heisig & Kannan (2020), following a systematic review, and Joshi et al (2015) both highlighted the need to include gender-related factors in KM research, to better establish if gender matters. They point out that gender asymmetry has been largely neglected in the KS and KM field. To fill this important gap, this paper outlines research to explore factors commonly held to enhance or inhibit KS, but uses a female only cohort, from the gender-unmixed academic environment of a female-only campus in a university that has a policy of gender segregation. The King Saud University has two campuses, each having academic staff, administrators, and students of one gender only.

2. Conceptual Context

There are many definitions of KM, one that is widely accepted from Beadles et al (2005) is that KM represents the full exploitation of an organisation's knowledge assets in pursuit of its goals. KS can be characterised as a social interaction between individuals or groups that results in the exchange of their experiences or knowledge (Lin, 2007). While KS is a conscious act, there are unconscious forces at play too, represented as barriers that prevent or inhibit it (Zheng, 2017), *Figure 1.*
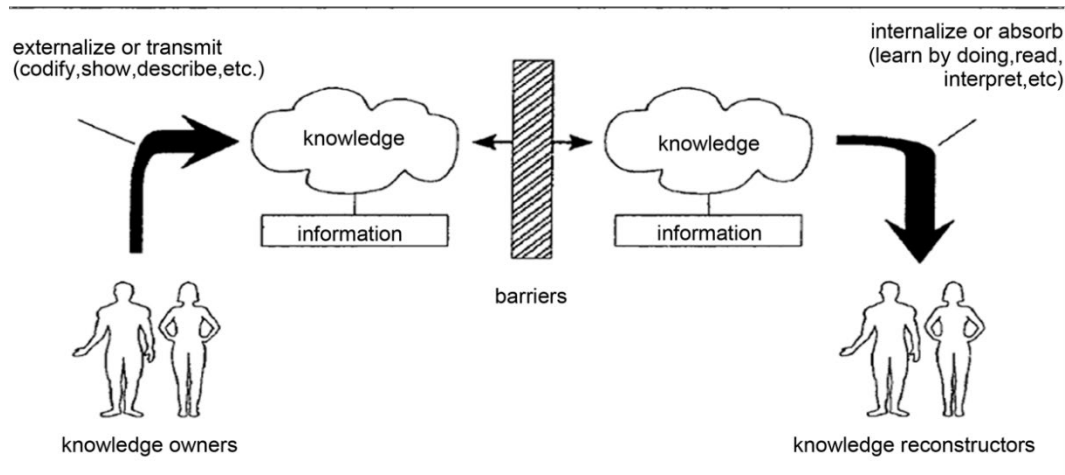
Source: Zheng, 2017.

Figure 1. A Simplified Representation of KS Exchange

2.1 The Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) (Ajzen, 1991), and variants of it, are frequently used to analyse KS behaviours and the factors that affect them (Kuo & Young, 2008), including in HE. It posits that the best predictor of behaviour is intention, which is a product of three constructs, attitude toward the behaviour, subjective norms and perceived behavioural control (PBC). Attitude is the extent to which an individual is favourably or unfavourably disposed towards a particular action. Subjective norm is the product of a person's social and environmental surroundings and the perception of control an individual has: the expectations of important people or groups of people to the individual is central to this perception (Kuo & Young, 2008). PBC is about volitional control, i.e. the perceived difficulty of behaving in a particular way, it addresses an individual's concerns with wide-ranging factors including opportunities, skills, enough money, and information technology (Ajzen, 2020). The three constructs of the theory combined show that someone will have strong intentions to perform a given action if their attitude to it is positive, if they believe that important others think they should perform it and if they recognise that resources at their disposal are not limiting.

2.2 Conceptual Framework And Research Hypothesesa

Riege (2005, 2007), following an extensive review of business sector literature, identified and classified ~36 barriers to KS into three classes, individual (personal), organisational and technological, which have, before and since, by many authors, been treated as antecedents to the three constructs of the TPB. Following an extensive literature review, the most important, i.e., most likely to occur and most likely to be influential, of these barriers are identified and incorporated in a context-specific conceptual framework (*Figure 2*) conforming with the TPB.

The model presented here was designed for this research based on the TPB (Ajzen, 1991) and the work of Riege (2005; 2007). It hypothesises the antecedent factors likely to affect the three constructs predicted to influence KS intentions: 1. Individual (Reputation, Rewards and Self-Efficacy) antecedents to *Attitude*; 2. Organisational (Climate & Culture, Leadership/Top Management Support, Trust, Social Networks, Vision and Goals) antecedents to *Subjective Norm*; and 3. Technological (IT Infrastructure, IT Applications & Usage) antecedents to *Perceived Behavioural Control*. All three constructs affect *Intention* to act, which is the best predictor of behaviour (Ajzen, 1991).
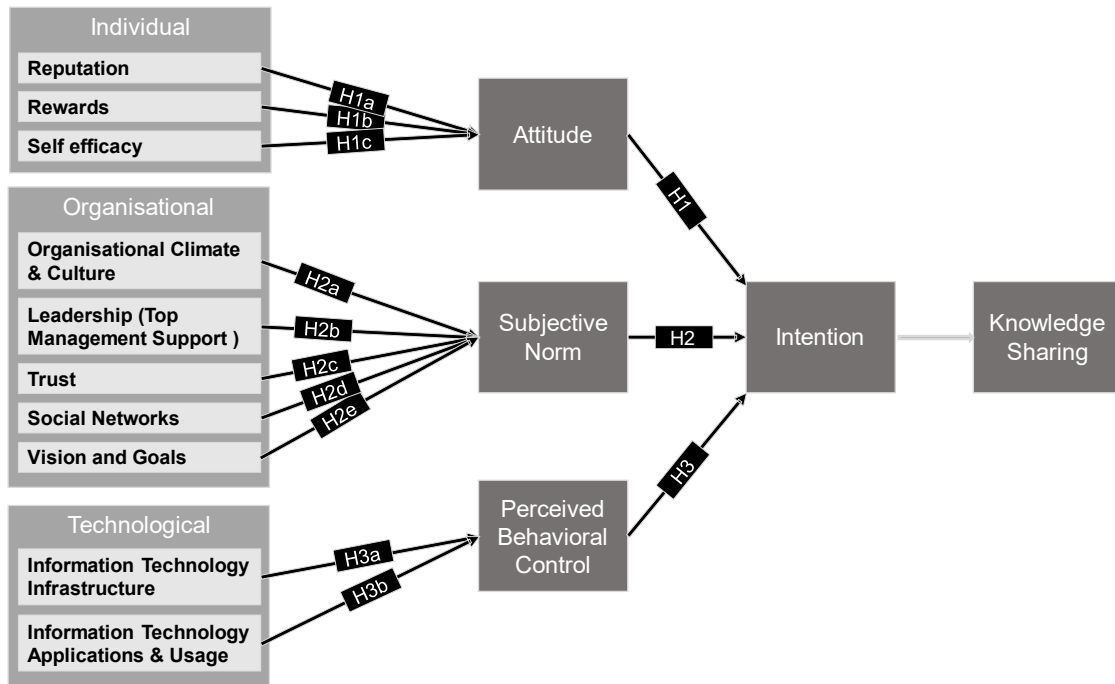
Figure 2: The Conceptual Framework

The research landscape for this research is the female-only campus of the King Saud University, Kingdom of Saudi Arabia. The hypotheses underpinning the conceptual framework, designed to statistically test the validity, direction and scale of each TPB construct and antecedent effect, are set out below.

2.2.1   Individual factors

Hypothesis 1 Attitude in female academics positively affects intention to KS.

An individual's attitude to KS is positively affected by the following antecedent factors in female academics.

H1a Reputation.

H1b Rewards.

H1c Self-efficacy.

2.2.2   Organisational factors

Hypothesis 2 Subjective Norm among female academics positively affects intention to KS.

An individual's subjective norm to KS is positively affected by the following antecedent factors.

H2a Organisational culture.

H2b Leadership/top management support.

H2c Trust.

H2d Social networks.

H2e Vision and goals.

2.2.3   Technological factors

Hypothesis 3 Technological factors experienced by female academics positively affect intention to KS.

An individual's perceived behavioural control (PBC) is positively affected by the following antecedent factors.

H3a IT infrastructure.

H3b IT applications and usage.

3. Methodology

The hypotheses will be tested by a mixed-method approach, considered most appropriate because it combines the strengths of qualitative and quantitative data while limiting their weaknesses (Creswell & Plano Clark, 2011). Quantitative data will be collected via a questionnaire survey, with the questions drawn from previously published studies and modified to suit this research landscape. Qualitative data will be elicited from in-depth interviews with female academics. Appropriate statistical analyses will be used to quantify the most important barriers and inducements to KS.

4. Expected Results and Benefits

This paper outlines a research project to establish the most important factors affecting KS between female academics at a university that systematically separates females from males.

Previous research has demonstrated that KS is vital to the success of KM in universities and that active KS can be encouraged. However, university administrators should identify and understand the obstacles to it, then work to enhance participation by using motivators which improve academics' intention to KS with colleagues. This study will identify the factors, whether individual, organisational, or technological, most likely to influence the KS of female university academics and determine if the influence is positive (inducement) or negative (barrier), and quantify the extent of the influence. Therefore, it will result in an evidential basis for administrators to act upon. The results will strengthen understandings of KS behaviour among female academics in an educational organisation implementing a policy of gender separation and, therefore, contribute to bridging the knowledge gap regarding differences in KS behaviours between men and women.

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