Knowledge Sharing among Academics in Institutions
of Higher Learning: A Research Agenda

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Abstract

This paper presents a research agenda for a funded research project on knowledge sharing among academics in Malaysia. One of the main objectives is to develop validate and measure of knowledge sharing which is suitable for academicians. Previous studies on knowledge sharing have used standard measurement items which do not cater for the multiple roles held by academics such as teaching, mentoring, supervising, publishing, networking etc. We will present the proposed methodology of achieving the objectives stated and round it up with the expected outcomes.

Keywords: Knowledge sharing, Academics, Instrument development, Higher education, Academics

1. Research Background

Under Malaysia's 9th economic plan, human capital is noted as the main driver for firm performance, especially in this present knowledge-based economy. Efforts had been undertaken by our government in harnessing intellectual resources for our economic growth as evidenced by grant allocations, technological support and the amount spent on individual growth. However, policies and infrastructures can merely facilitate the process of sharing, but yet reluctance of individuals could still prevail.

Given that the academic community strives on intellectual prowess, accumulation and dissemination, critical mass of knowledge sharing needs to be continuously achieved to justify the existence of higher learning institutions. Hence, attitudes and behaviors that impede intellectual discourse and progress, needs to be identified in conjunction with the reasons behind those actions.

Research has highlighted some of the reasons why individuals are unwilling to share information. For instance, Constant et al. (1994) had highlighted that organizational incentive structures, such as pay for performance compensational schemes, can serve to discourage knowledge sharing if employees believe that knowledge sharing will hinder their personal efforts to distinguish themselves relative to their co-workers. In the academic community,

academicians' promotions are based on their diverse roles: lecturer, researcher, community service provider, etc. There are a myriad of information and knowledge artifacts or types that reside in those roles that can prevent one from hiding one but not another. This might depend on the threat that one faces that they might lose by willingly giving up those information. Hoarding knowledge and looking suspicious upon knowledge from others are natural tendencies of any human (Davenport & Prusak, 1998). However, given that universities play an important role in educating the younger generation and generating greater understanding, a fundamental issue has yet to be uncovered: What knowledge are shared among academicians and what remains closely guarded?

2. Research Objectives

Therefore, the objectives of this research are to:

1. Compile the types of knowledge artifacts that reside among the varying roles of academicians.

2. Investigate the extent of knowledge sharing in relation to those artifacts.

3. Understand the motivations, attitudes and barriers to sharing knowledge among academicians.

3. Methodology

A population frame of all lecturers would be compiled across public institutions of higher learning in Malaysia. A randomized sampling methodology (**see Figure 1**) will be used to select the samples of lecturers through stratification along courses, grade levels and faculties. Both focus group and survey approaches will be utilized for this study. Measures will be validated through structural equation modeling approaches.

The study will employ the methodology suggested by Bagozzi (1980), and, Bagozzi and Phillips (1982) whereby they used a comprehensive coverage of six components of validity. (see Table 1)

A four stage process (Loiacono et al., 2002) will be employed and they are briefly described below:

3.1 Stage 1: Defining the dimensions of knowledge sharing

To decide what constitutes the pertinent dimensions of knowledge sharing a four pronged effort will be used. First a critical review of research related knowledge sharing will be conducted. Also parallel to this, we will conduct an exploratory research project to ensure comprehensiveness of the constructs. This is done by soliciting criteria from lecturers in public institutions of higher learning (IPTA) in two locations, one in West Malaysia which will be Kuala Lumpur and one in East Malaysia to be done in Kuching. Interviews will be conducted to clarify the criteria's suggested.

3.2 Stage 2: Developing the Items

Scale development can either be inductive or deductive (Hinkin, 1998, Loiacono et al., 2002). We will use both the inductive approach (literature review) and deductive approach (exploratory research).

3.3 Stage 3: Refinement

To prevent from item order bias, 2 random order versions will be created and tested. Item assessment and purification will be done after collecting data from a group of respondents. The goodness of measures will be done to assess the validity and reliability and items not conforming to the minimum criteria suggested in literature will be dropped.

3.4 Stage 4: Final Item Selection and Assessment of Measurement

A second round of data collection will be done in Malaysia, Indonesia and the Middle East to test the refined instrument. A confirmatory factor analysis and also an exploratory factor analysis will be conducted to assess the validity.

To validate the final instrument the following will be assessed:

Confirmatory factor analysis using Structural Equation Modeling

Internal consistency of Items will be assessed using the Cronbach's alpha

Discriminant validity will be tested by using the inter-correlations

Discriminant validity refers to the extent to which measures of 2 different constructs are relatively distinctive, that their correlation values were neither an absolute value of 0 nor 1 (Campbell and Fiske, 1959).

Convergent validity will be done following the development of SERVQUAL (Parasuraman et al., 1988)

Nomological/predictive validity will be assessed by looking at the relationship between the new measure of knowledge sharing and performance

Adequacy of model fit will use four recommended indices which are RMSEA, SRMR, RNI and NNFI.

3.5 Flow Chart of Research Activities

The flowchart for the research activities are depicted in Figure 2.

4. Expected outcome and benefits

This research will:

Produce a validated and reliable instrument to measure knowledge sharing.

Indicate the extent of knowledge sharing among the academic community.

Highlight areas that require greater facilitation for knowledge sharing.

Uncover reasons behind the unwillingness to share.

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Table 1. Validity Assessment

Validity Issue	Concern
Theoretical meaningfulness of concept	Constructs well defined Making theoretical sense
Observational meaningfulness of concept (content validity)	Measures correspond to theoretical constructs
Internal consistency	Maximally similar measures of the same construct agree (i.e. reliability)
Discriminant validity	Distinct constructs can be distinguished
Convergent validity	Maximally dissimilar measures of the same construct correlate (e.g. do a collection of questions on a questionnaire correlate with an overview question, or with some objective measure)
Nomological validity	Making sense in the larger theoretical framework

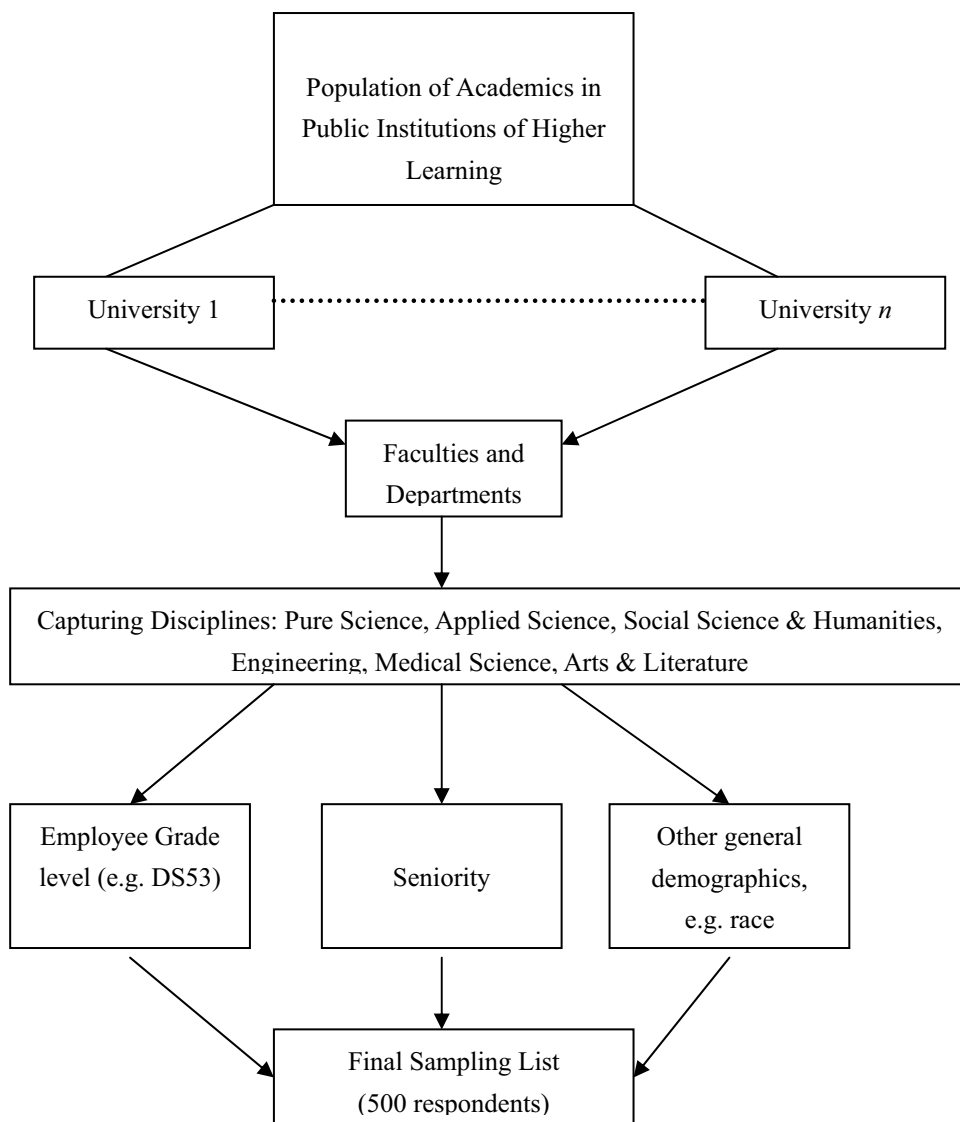Based on Bagozzi (1980) and Bagozzi and Phillips (1982).

Figure 1. Randomized stratification sampling (proportionate to size of cohorts)

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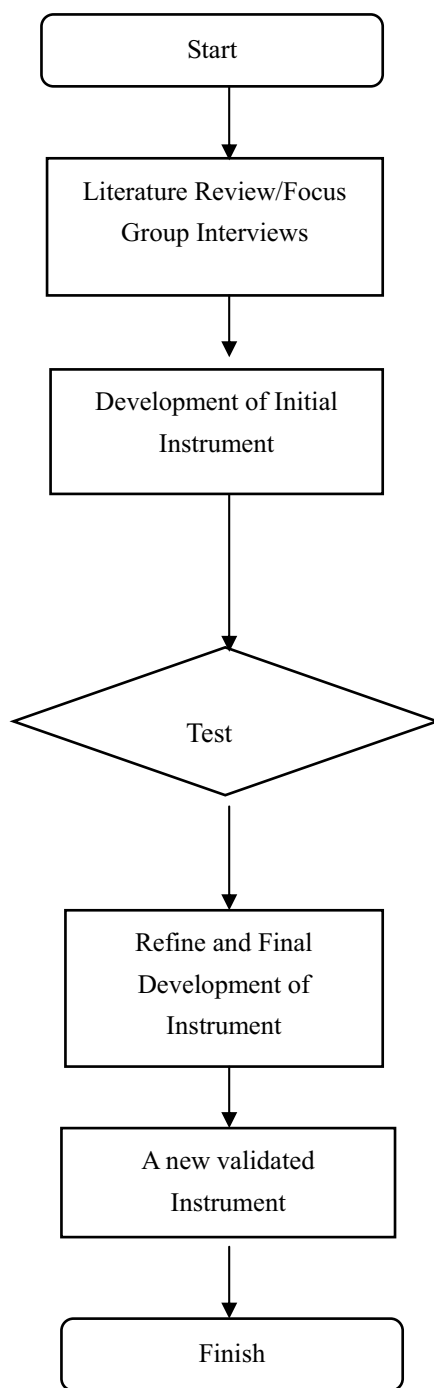
Figure 2. Randomized stratification sampling (proportionate to size of cohorts)