

RESEARCH ARTICLE

Sharing Knowledge Through Publishing Research Work in Indexed Journals: A Vision of Malaysian Private Universities

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Abstract: Policymakers are overwhelmingly worried about reinforcing new trends for academics' knowledge sharing through publishing research work in indexed journals. By being the first, this study investigates the issue from the behavioral perspective along with perceived trust construct while inundating previous studies discovered from different factors, including technological, environmental, and cultural. A total of 315 valid responses were received from Malaysian private universities' academics through a self-administrated questionnaire survey. Covariance-based structural equation modeling was implemented to test the hypotheses. The results indicate that perceived trust has a significant positive impact on attitude, but a negative effect on intention. Furthermore, attitude and subjective norms can positively stimulate academics' intention to publish a paper. Likewise, perceived behavioral control has a positive and negative impact on academics' intention and publication behavior, respectively. Thus, a positive rapport had been established between intention and actual behavior. In lieu of these, the insightful results received from this study would help policymakers design a successful behavioral intervention program in higher educational institutions settings to accelerate academics' knowledge sharing. Future directions and policy implications are discussed accordingly.

Keywords: Publications, indexed journals, knowledge sharing, higher education institutions, Malaysia

Universities are knowledge-based institutions that can transform people's lives by developing and disseminating quality knowledge and information. Valuable knowledge needs to be developed through research, shared through article publications, teaching, consultation, and thus acquired and used by students, researchers, and policymakers for the betterment of a specific community. Managing knowledge and

information indeed is one of the crucial strategies that can determine the development and sustainability of a university (Al-Kurdi et al., 2020).

Publishing research work is an essential step for academics to distribute their scientific knowledge and evaluate their research ideas and findings by getting peer-reviewed suggestions. Other researchers can view, comment, verify, and confirm the published research

framework and results. The ongoing publication of scientific knowledge will continue developing new knowledge that will result in new and improved goods and services, processes, or systems. Web of Science (*WOS*) and *Scopus* are databases managed by private companies, Clarivate Analytics and Elsevier. Papers that aimed to be published in these databases must undergo a rigorous and double-blind peer-review by experts before the research work is accepted for publication. Journals indexed by WOS or Scopus must provide new knowledge to scholars and policymakers in solving specific critical issues that would be value-added to society (Fauzi et al., 2018; Iqbal et al., 2019). As the content of an article involves a process of high-quality peer-reviewed publications of an indexed journal, it serves as an important key performance indicator for academic promotion in universities (Fauzi, Nya-Ling, Thursamy, & Ojo, 2019). Publication of indexed journals also helps the authors establish the ownership of the presented research works.

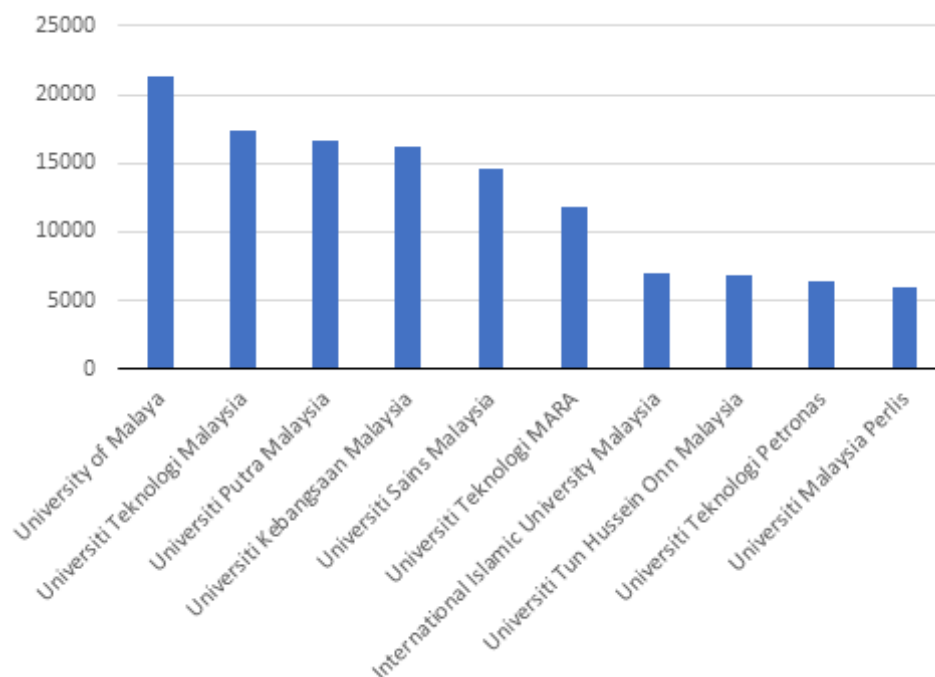
Despite the significant role played by academics towards knowledge sharing through different professional activities, including teaching, research, consultancy, publication, advisory, and motivating others, some empirical studies indicate that academics have knowledge hoarding culture because of fear of loss knowledge ownership (Charband & Navimipour, 2018; Fullwood & Rowley, 2017).

Because educational institutions enter into the globalization era and academics are trying to safeguard their earned knowledge, the Malaysian Ministry of Education (MoE) has established two blueprints to overcome these challenges: “National Higher Education Action Plan” (2007-2010) and “National Higher Education Strategic Plan” (beyond 2020). The maiden concentrations of the plans were to develop a better educational foundation within 2007–2010 and then strengthen that foundation until 2015. A well-designed education foundation includes dynamic, versatile, and strategic teaching curriculum and tangible facilities that can enhance students’ knowledge in innovation, creativity, entrepreneurship, and technologically sound, which eventually will help graduates sustain in the competitive job market. Subsequently, Malaysian higher education systems will achieve their excellency from 2016–2020 (Grapragasem et al., 2014). To measure the excellency and sustainability of Malaysian Higher Education

Institutions (HLIs), the MoE has established Malaysia Qualification Agency (MQA). To materialize this end, MQA has designed three independent assessment bodies (SETARA, MyQUEST, and MyRA) to ensure the quality of HLIs by rigorous rating. Every year, these authorities rate all Malaysian HLIs based on teacher/student ratio, facilities, curricula, graduate employment, research publications, citation per paper, student exchange, collaboration, and industry involvement; they then categorize the institutions into Tier six (outstanding) to Tier one (poor) (Grapragasem et al., 2014).

To ensure sustainable development in the higher education system, the Malaysian government allocated additional budget to emphasize more quality research and publications to help universities achieve world-class status in the global ranking system (Ministry of Higher Education, 2011). Despite government assistance, Malaysian private universities struggle to secure their position in the Quacquarelli Symonds Limited (2018) ranking. Aziz (2018) reported that only four Malaysian private universities had secured their position in the top 500 world’s universities. As Aziz (2018) discussed, it was evident that Malaysian private universities suffer in the research impact section, a crucial part that is calculated by the citation of the respective publications. Statistics show that some Malaysian private universities are experiencing massive instability from the 2014–2018 QS ranking (Quacquarelli Symonds Limited, 2018). More importantly, the main reason for that fluctuation could be the university’s research impact, which is considered 20% of the overall score (Lee et al., 2018).

As of December 25, 2019, 83 private and 53 public universities had registered under the Malaysian Qualification Agency (<https://www2.mqa.gov.my/mqr/>). From 2015 to 2019, the top 10 universities in Malaysia that had published Scopus indexed articles were public universities (see Figure 1). Thus, it is evident that Malaysian private universities still lag far behind public universities in terms of Scopus indexed publications. To become an international education hub in Asia, private universities need to increase research impact by publishing more articles in indexed journals. This study intends to fill the knowledge gap by studying factors that can influence the Malaysian private universities’ academics’ intention to publish indexed journals.



Source: www-scopus.com

Figure 1. The Quantity of Scopus-Indexed Articles Published Among Top 10 Universities in Malaysia From 2015–2019

A preliminary study was carried out to examine factors that influenced academic respondents' intention to publish research work in indexed journals. Face to face interview was arranged with 20 academics from a few private Malaysian universities. The results showed that part of the following behavioral factors was playing a major role in the academics' attitude (favorable versus unfavorable), pressure received from other people termed as subjective norms (SN), and availability of internal and external resources that denotes as perceived behavioral control (PBC). To solve the problems, theory of planned behavior (TPB) was used as the underlying theory.

This study contributes to the body of knowledge by examining the problems (from a behavioral perspective) that discouraged private universities' academics' intention to publish research work in indexed journals. The study aims to provide useful indications to the government and private universities' management teams to understand academics' behavior and strategic policy interventions that can motivate academics' publication intention behavior. The following sections focus on detecting the literature gap and discussing the theoretical and conceptual frameworks. The subsequent sections address current

research methodology, empirical results, conclusion, and policy implications.

Literature Review

Theoretical Underpinning

Behavior is defined as an individual's degree to perform specific actions that would be measured by intention (Ajzen, 1991). Knowledge sharing can be determined as an individual's actions that cannot be forced to be performed. Many behavioral theories have been used to measure knowledge sharing behavior, for example, social self-efficacy theory (Bandura, 1977), social cognitive theory (Bandura, 2001), the theory of reasoned action (Fishbein & Ajzen, 1977), and TPB (Ajzen, 1991). The question is, which theory should be used in this study? TPB is chosen as the basic theory of this study because it thoroughly examines potential theoretical constructs that can lead to solving most of the problems faced by the studied academic respondents. Moreover, it provides a room for extending the theoretical framework so that all research problems within the context of Malaysian private universities can be analyzed comprehensively.

Fauzi, Nya-Ling, Thurasamy, Ojo, and Shogar (2019) investigated the importance of Malaysian Muslim higher education institutions academics' knowledge sharing behavior through a conceptual framework based on TPB, SCT, organizational, and technological constructs. The results revealed that all constructs had a significant impact on knowledge sharing behavior except commitment. The authors argued that trust was an essential construct because it forced academics to share their earned knowledge. Similarly, previous researchers also found that trust had a significantly positive influence in the contexts of scholars and students' knowledge sharing behavior (Khan & Ali, 2019; Razi et al., 2019; Tan & Noor, 2013). Wu and Chen (2005) used trust as an additional variable with TPB to investigate the impact of adapting e-tax payment service. The results revealed that trust had a significant effect on making e-tax payment. The authors argued that because online payment was not associated physically, the respondents put more importance on trust. In the same line, knowledge is considered as an intellectual asset that can be shared with others only if trust exists, among other factors.

In summary, TPB is enriched with an additional construct: perceived trust, which is scarcely done in literature, allows the current study to contribute new theoretical knowledge. The construct of perceived trust originates from social capital theory, and the construct explains the degree of trustworthiness that academics have towards collaborated people of a research project (Al-Kurdi et al., 2020).

Empirical Review

Knowledge is a collective form of plausible information that a person can learn from practical experience and education (Eddy, 2013). Knowledge can be divided into two categories, tacit and explicit. To acquire explicit knowledge is comparatively easier than tacit knowledge because explicit knowledge is usually gained from different published sources. In contrast, tacit knowledge is learned from experience or other persons (Maravilhas & Martins, 2019). Knowledge is strengthened if it could be shared through proper channels; thus, knowledge sharing is considered one among the essential elements of knowledge management programs that help an organization to reach the ultimate goal through accelerating efficient decision-making process (Lopez-Nicolas & Soto-Acosta, 2010; Sunalai & Beyerlein, 2015). Relatively,

very less attention has been paid to knowledge sharing among academics, even though universities are considered as knowledge creation institutions, and if knowledge hoarding continues, it could become a severe problem in higher learning institutions (Charband & Navimipour, 2018; Fauzi et al., 2018; Fullwood & Rowley, 2017; Kim & Ju, 2008). To shed light on that argument, nowadays, knowledge sharing in academic institutions has become an important issue that needs to be resolved.

Numerous conceptual frameworks have been discussed in knowledge sharing literature. For example, Tan (2016) developed a conceptual framework based on individual and organizational variables to test knowledge sharing factors from five public universities in Malaysia. The model validated that individual variables, such as perceived trust and openness in communication, could influence academics to share their earned knowledge. Similarly, organizational factors, such as the reward system, institutional culture, and knowledge management system, had a significant impact on knowledge sharing. Goh and Sandhu (2013) tested a model developed on TPB by measuring emotional factors, such as affective trust and affective commitment. The result revealed that most of the factors had a positive effect on academics' knowledge sharing intention. Other researchers also found the TPB constructs to have a significant impact on academics' knowledge sharing intention (Fauzi, Tan, et al., 2019; Punniyamoorthy & Asumptha, 2019; Stenius et al., 2017).

Arguably, most of the prior studies on academics' knowledge sharing focused on different perspectives other than behavioral aspects. For instance, Alotaibi et al. (2014) proposed Saudi Arabia higher education institutions academics' knowledge sharing through a technology-based conceptual model even though they did not validate the model with data. The researchers assumed that academics' knowledge sharing behavior could be affected by technology. However, they did not include any behavioral constructs in their study. Iqbal et al. (2019) investigated the relationship between the knowledge management process and the performance of Pakistan universities' academic and administrative staffs. The results depicted that organizational performance typically depended on unique innovation and intellectual capital. Besides, Jolae et al. (2014) found that academic staff knowledge sharing was not determined by the different kinds of extrinsic

and intrinsic rewards, but attitude and subjective norms had a significant positive effect. Likewise, Al-Kurdi et al. (2018) explored the most impact factors that could affect academics' knowledge sharing and knowledge management system through a systematic review of 73 papers. They found that most of the papers that shade evidence of technological, cultural, and organizational characteristics played a vital role in effective knowledge sharing. Thus, it is clearly stated that most of the past studies concentrated on organizational, technological, and individual factors instead of behavioral attributes.

On the other hand, a significant number of knowledge sharing studies had been carried out in respect of organizational perspectives. For example, AlShamsi and Ajmal (2018) examined how knowledge sharing affects technology-based companies in United Arab Emirates (UAE). Their results indicated that organizational culture and leadership quality had accelerated knowledge sharing among staff. In the same vein, Chiu and Chen (2016) scrutinized Taiwanese public utility companies' knowledge management capabilities and performance. The findings illustrated that knowledge process capability and organizational effectiveness had a significant relationship, whereas an insignificant relationship was found towards knowledge infrastructure capability. Therefore, knowledge sharing and knowledge performance have become indispensable parts of any organization to achieve their ultimate goal. Chang et al. (2017) mentioned that knowledge is considered an important strategical asset that helps organizations get competitive advantages. Successful innovation capability cannot be executed without proper knowledge sharing culture.

From the above discussion, it is clear that most of the past studies have been concentrating on studying knowledge sharing in organizations and public universities elsewhere with little attention to behavioral perspectives. In the Malaysian context, private universities, though have not been studied much on the same concern, have a significant impact on achieving the Malaysian national goal of becoming an Asian education hub. Therefore, this study fills the literature gap by scrutinizing academics' knowledge sharing behavior in Malaysian private universities. Therefore, this study added one additional variable to strengthen the conceptual framework.

Hypotheses Development and Conceptual Framework

Perceived Trust

Trust is an important and widely accepted antecedent factor that can affect a person in managing and sharing specific knowledge or information (Ghobadi & Mathiassen, 2017). Mayer et al. (1995) defined trust as a relationship between two parties where one party is willing to perform a specific job if the other party will make an appropriate response regardless of controlling or monitoring each other. Trust can be classified into two dimensions—*affective* and *cognitive*. In the context of this study, *affective* trust is defined as the degree of trust between two or more persons, and the behavior can determine the emotional relationship among academics. Meanwhile, the *cognitive* trust dimension shows the degree of trust that the respondents have towards their own academic qualification, experience, reputation, and rational and thinking capabilities (Johnson & Grayson, 2005).

In a study related to academics' knowledge productivity by Fauzi, Nya-Ling, Thursamy, & Ojo (2019), the result showed that the construct of trust had changed the respondents' attitude positively. However, Fauzi et al. (2018) asserted that trust did not significantly affect attitude in respect of higher learning institutions' academics' knowledge sharing. According to Salehan et al. (2018), trust was considered an effective channel that could help share an individual's earned knowledge with others. Academics' positive attitudes towards knowledge sharing can be developed when there is sufficient trust between the respondents and counterparts. Therefore, a person becomes more interested in sharing valuable and important information when a relationship is created based on trust. Some researchers claimed that when respondents feel that they have trust towards their colleagues, the knowledge sharing attitude automatically boosts up (Chow & Chan, 2008; Raza et al., 2018). This statement gives an avenue to predict that academic respondents will form a favorable attitude towards knowledge sharing.

Meanwhile, a perceived trust construct can influence a respondent's intention to perform a certain behavior. For example, Dabholkar and Sheng (2012) found that online purchasing intention had increased when a sufficient level of trust in sellers and delivery system was built among the buyer

respondents; trust was boosted by allowing potential buyers to view the comments and ratings given by previous buyers. Jolae et al. (2014) revealed that higher education staff's knowledge sharing had accelerated when they could trust each other. More importantly, confidential information cannot be shared with anyone until they are confident that the shared information will not be misused. As such, staff cannot be forced to share the earned personal knowledge unless the top management decided to provide a better working environment that can nurture trust among staff. Thus, from the above-discussed literature, coupled with the response given by academic respondents during the preliminary study, the current study thereby projects that the following constructs—perceived trust, attitude, and behavioral intention—will form the following relationship.

- H1: Perceived trust and attitude are positively related.
 H2: Perceived trust and behavioral intention are positively related.

Attitude

According to TPB, attitude is a strong predictor of a person's intention to perform a specific action (Ajzen, 1991). In their study, Fauzi et al. (2018) observed that teaching staff in Higher Education Institutions (HEIs) had developed a positive attitude towards the intention to share knowledge, regardless of any kind of barriers. Similarly, Jolae et al. (2014) showed that academics from a public university in Malaysia had formed a favorable attitude towards knowledge sharing intentional behavior. From the reviewed literature, it can be predicted that the current academics respondents from private universities will develop a favorable attitude towards knowledge sharing intention.

- H3: Attitude and behavioral intention are positively related.

Subjective Norms

The TPB explains that the degree of pressure that an individual would receive from certain people if they were to perform a specific act or behavior (or subjective norm) will encourage or discourage them from performing it (Ajzen, 2015). The theory

proposition was supported by (Fullwood & Rowley, 2017). The authors found that academics' (from the United Kingdom universities) intention to share knowledge was positively related to the subjective norm. Punniamorthy and Asumptha (2019) found that academician's knowledge sharing intention was significantly and positively influenced by subjective norms in the context of Indian higher education. The authors mentioned that although respondents sometimes felt reluctant to share their valuable knowledge with others, they acted positively upon receiving a request from senior colleagues, faculty dean, and head of the program. The TPB proposition related to the subjective norm and behavioral intention was supported by other researchers (Conner, 2015; Rahman et al., 2016; Raza et al., 2018).

This study predicts that academics' intentional behavior will be positively related to the subjective norm because of the following reason. Respondents' publication of indexed journals can be intensified if the academics receive encouragement or pressure from a specific group of people, such as family members, colleagues, students, and society, who will value the outcome of the publications. Thus, the following hypothesis is developed:

- H4: Subjective norms and behavioral intentions are positively related.

Perceived Behavioral Control

According to TPB's proposition, PBC (in terms of self-efficacy and support received from the institution) is expected to create a positive effect on a person's intention to perform a specific behavior. Ryu et al. (2003) showed that the degree of physicians' knowledge sharing had increased when they had positive perceived behavioral control. Wu et al. (2012) asserted that in an organizational context, knowledge sharing intention accelerates when employees have confidence that whatever knowledge acquired from practical experience can solve problems and achieve organizational goals. The empirical results support that employees' knowledge sharing intention is influenced by perceived behavioral control.

Fauzi, et al. (2019) supported Ryu et al.'s (2003) results in which perceived behavioral control and knowledge sharing intentional behavior among academics were positively related. Therefore, the

review of past studies' results could support the following hypothesis: academics' intention to publish indexed journals will increase if the academics believe that they have a sufficient level of self-efficacy to write quality scientific manuscripts for publication.

H5: Perceived behavioral control and behavioral intention are positively related.

Interestingly, past studies also supported another TPB's proposition: PBC and actual behavior are positively related. For example, Jain et al. (2017) showed that the positive PBC had influenced the respondents' actual purchasing behavior on Indian luxury fashion goods. When respondents believe that they have the purchasing capability of the luxury product, they purchase it without thinking. In addition, Al-Kurdi et al.'s (2020) study results supported the previous study in that higher PBC had encouraged academics to perform actual knowledge sharing behavior. In Malaysian private universities context, when academics have the perception that they have sufficient confidence to write a paper and the university provides all the required facilities including DataStream terminal, subscribed good journals, and research grants, then actual behavior will take place. Academics' actual behavior is executed when an academic carries this belief that "I can write a quality paper without having

any difficulties and that I can publish in an indexed journal." Therefore, we hypothesized that:

H6: Perceived behavioral control and actual behavior are positively related.

Behavioral Intention

According to the TPB, behavioral intention and actual behavior are positively related (Ajzen, 1991). Rahman et al. (2016) revealed that non-academic staff in Malaysian higher education institutions shared their knowledge when a positive intentional behavior had been cultivated in the respondent's mind. Chang et al. (2015) supported the theory's proposition when the virtual community was surveyed. It was obvious that a respondent's strong intention could help to execute actual knowledge sharing. Therefore, this study expects that academics are going to publish indexed journals if they have a strong intention to do so. This study anticipates that.

H7: Behavioral intention has a significant influence on actual behavior.

Based on the literature review and hypotheses developed, the study's proposed research model is presented in Figure 2.

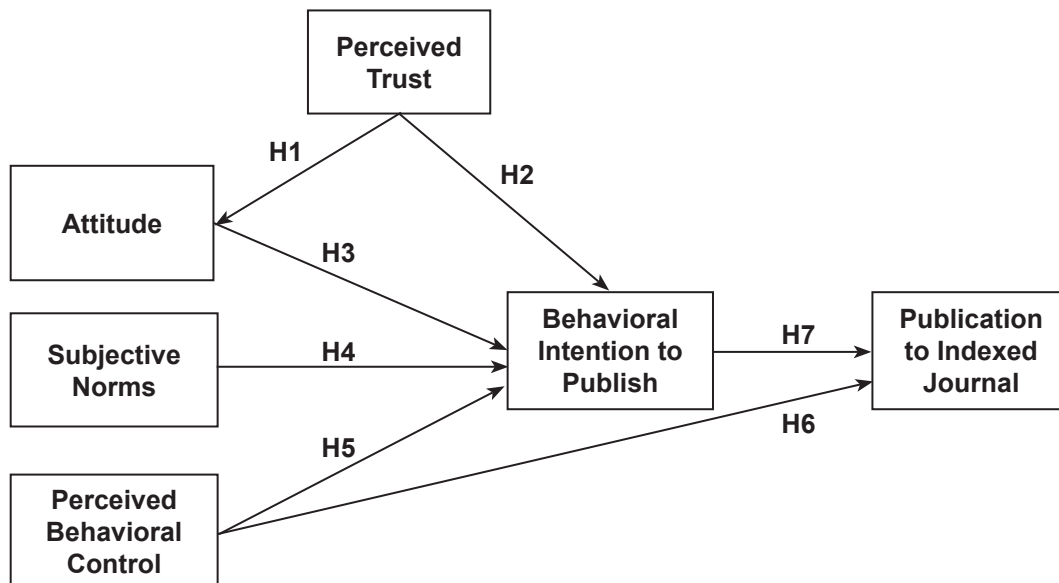


Figure 2. Proposed Conceptual Framework

Methods

To select an appropriate research paradigm, there are many factors needed to be taken into consideration, including the current study's research phenomena, researcher's philosophical condition, research objective, and questions (Hair et al., 2019; Hair et al., 2014). As the TPB constructs and propositions have been widely tested and confirmed in the literature, an exploratory study to find out the appropriate items that can measure the theory's constructs is not required. Using the positivism paradigm, a deductive research method is used to develop the current study's hypotheses, and statistical analyses are performed to confirm the hypothesis.

Quantitative approach using a questionnaire survey was adopted in this study. The questionnaire consisted of two parts: demographic and measurement items. Demographic profiles incorporated all basic information about respondents, whereas details of measurement items were placed in the first part of the questionnaire. The items were adapted from past studies and measured by using a 7-points Likert scale that ranges from strongly disagree (or 1 point) to strongly agree (or 7 points). Constructs, attitudes, subjective norms, and intention-measurement items were adapted from Bock et al. (2005). Perceived behavioral control, actual behavior, and perceived trust measurement items were adapted from Wu and Chen (2005), Akhvan et al. (2015), and McAllister (1995). The details of the items are shown in Table 1.

Data and Sampling Approach

This study targeted academics who have worked for at least one year in any private university located in West Malaysia and had published at least one article, book chapter, or conference proceeding to any journal indexed by WoS or Scopus. Data were collected from 10 private universities located in the state of Selangor and Kuala Lumpur: Universiti Tunku Abdul Rahman (UTAR), Multimedia University, HELP University, SEGi University, Sunway University, INTI International University, Taylor's University, International Centre for Education in Islamic Finance (INCEIF), UCSI University, and Universiti Kuala Lumpur (UniKL). The maiden reason for choosing the two states is because the greatest number of private universities are located in these states.

Non-probability sampling method was used in selecting the respondents because not every private university had provided the list of their academics and their curriculum vitae for public viewing. Under the multi-stage quota sampling method, few processes were undertaken. In the first stage, the universities were divided according to their location, Kuala Lumpur and Selangor. As the Selangor state is composed of few cities, only universities located in two metropolitan cities (Petaling Jaya and Subang Jaya) were selected in the second stage. In the third stage, the snowball sampling method was used to select the respondents because members of the population could not be located or contacted easily. The first round of the research participants was obtained through the assistance of a few known academics. In the subsequent rounds, the interviewed respondents were asked to assist us in identifying potential respondents. A formal invitation email was sent to the potential respondents before meeting for the questionnaire fill out.

The questionnaire was distributed face to face after getting positive consent from the respondent. This is because researchers usually criticize other approaches like postal service, email, or online for the reason that a questionnaire might be filled-out by non-respondents, or part of the questionnaire may be misunderstood, or the questionnaire might not be filled-out accordingly. However, the facilitators had to brief the purpose of the research regardless that a cover letter had been attached to the questionnaire, highlighting the details of the study. Similarly, after completing the questionnaire, the respondents were requested to recommend qualified colleagues who were eligible to fill-up the questionnaire. The facilitators approached the suggested respondent after getting a positive response.

To ensure the face validity and content validity, the questionnaire was discussed with four academics who are experts in academia. Their feedback was incorporated accordingly. Therefore, a pre-test was examined to warrant that the questionnaire's wording, sequence, length, and instructions are understandable towards real respondents. Two out of 10 respondents misunderstood the last item on publication to indexed journals. The item was changed from "I publish article in indexed journal" to "I attend and contribute to different knowledge sharing activities such as conferences, seminars, colloquium, and different experts learned comments help me to publish in

Table 1*The Details of Measurement Items*

| Codes | Measurement items | Sources |
|---|---|---|
| Perceived trust – I trust that my colleagues | | |
| PTT1 | will help me if I need assistance in writing and/or publishing indexed journal. | Akhvan et al. (2015), McAllister (1995), Wu & Chen (2005) |
| PTT2 | will give me constructive comments if they spotted any problem. | |
| PTT3 | are willing to discuss with me freely whenever I need their consultation. | |
| PTT4 | will keep in secret all of my valuable information that are related to publications. | |
| PTT5 | will guide me anytime for excel my research knowledge. | |
| PTT6 | will give me honest feedback related to article's contents even before publication. | |
| Attitude | | |
| ATT1 | Publishing indexed journals is a valuable idea. | Bock et al. (2005) |
| ATT2 | Publishing indexed journals is beneficial to me. | |
| ATT3 | Publishing indexed journals give me a sense of pleasant experience. | |
| Subjective Norms | | |
| SNS1 | People who are important to me are encouraging to publish in indexed journal. | Bock et al. (2005) |
| SNS2 | People whose opinions are valued by me are encouraging to publish indexed journal. | |
| SNS3 | People who can influence my decision making are encouraging me to publish indexed journal. | |
| Perceived Behavioral Control – Publishing indexed journal is easy for me because | | |
| PBC1 | I have sufficient resources. | Bock et al. (2005) |
| PBC2 | I have sufficient time. | |
| PBC3 | I know how to write a paper. | |
| PBC4 | I have been receiving support from counter parts. | |
| PBC5 | I have been receiving sufficient support from my university. | |
| Behavioral Intention to Publish | | |
| BIP1 | I will start writing to publish in indexed journals | Bock et al. (2005) |
| BIP2 | I have a positive intention to publish indexed journal | |
| BIP3 | It is worthwhile for me to share my knowledge with colleagues and others through publication. | |
| BIP4 | I plan to share my valuable knowledge with my colleagues and others through publication. | |
| BIP5 | I would give it a try to share my valuable knowledge with my colleagues and others through publication. | |
| Publication to Indexed Journal | | |
| PIJ1 | I am sharing my knowledge with my colleagues and others through publication of indexed journals. | Akhvan et al. (2015) |
| PIJ2 | I am sharing knowledge of how to write and publish indexed journals with my colleagues. | |
| PIJ3 | I attend and contribute to different knowledge sharing activities such as conference, seminars, colloquium and different experts learned comments help me to publish in indexed journals. | |

indexed journals.” A pilot study was carried out after successfully incorporating all the misconceptions raised in the pre-test. In (2017) portrayed that a pilot study should be close to the actual respondents, and the sample size must be bigger than the pre-test so that it can truly represent the actual targeted respondent’s behavior. However, a total of 45 questionnaires were distributed to private universities in Kuala Lumpur and Selangor.

Sixty percent of respondents who filled out the questionnaire were male and 40% female. Thus, to ensure that the pilot study’s respondents represent a diversity of the true ethnic group, the study received 47% Chinese, 33% Malay, and 20% Indian. Moreover, to determine that the measurement items carry plausible threshold value, a reliability test was carried out. The result demonstrates that the value of Cronbach’s alpha is between 0.77 to 0.90, which has successfully overcome the risk of threshold value 0.70 (Tavakol & Dennick, 2011). Accordingly, there was no problem keeping these measurement items for the main study.

To analyze the structural relationship between the constructs, relatively advanced statistical tools such as Analysis of Moment Structure (AMOS) and Statistical Package for Social Science (SPSS) were applied. After voiding the missing data and outliers, 315 valid data were obtained and measured by using structural equation modeling (SEM) analysis to test and confirm the hypotheses.

Common Method Variance (CMV)

Common method bias or variance transpires when researchers collect data from a single source and self-reported questionnaire is used (Fuller et al., 2016). Due to the existence of CMV, internal consistency and correlation among the constructs could be misled. Based on the suggestion received from Tehseen et al. (2017), both statistical and procedural approaches were applied to escape CMV in the current study. To address the procedural CMV remedies, all measurement items were collected from different sources. Therefore, to provide psychological thinking, the demographic part was put on the last page of the questionnaire. Likewise, to understand the research objective, a cover letter was duly attached along with a briefing session. Both pre-test and pilot study had been done accordingly.

Besides, Harman’s single-factor approach was also executed to point out CMV. The result revealed that the variance expressed from the single-factor model was 23.52%, which is less than the ideal threshold value of 50% (Hair et al., 2014). Finally, a common latent factor (CLF) was applied to find out the CMV. Standardized regression weights were used to compare the items between the models with or without CLF. According to Archimi et al. (2018), CMV would be a serious issue if the differences among regression weights are >0.20 , but the result in the current study showed 0.12.

Results

To better understand the findings, the results are presented in three different phases. A brief descriptive statistical result is placed at the beginning to show the characteristics of the respondents. In the second phase, confirmatory factor analysis is used to ensure the reliability and validity of the collected data. And finally, a second-generation multivariate structural equation modeling analysis via AMOS 24 version software is deployed to understand the relationships between the studied constructs.

Descriptive Statistics

Table 2 shows the basic characteristics of the respondents. The table depicts that 51.4% of respondents were male compared to 48.6% female. According to Bakar (2012), Malaysian women, in terms of employment in top management levels, are fewer than men. Likewise, the majority of the respondents were aged between 41–50. This is the age range that the Malaysian population, including academics, becomes more productive than other age levels; thus, only 1.3% of the respondents were above 61 years old, the age that most people take their retirement. As Malaysia is a multi-ethnic country, three groups of ethnicities—Malay, Chinese, and Indian—were taken into account. Many respondents were Chinese, whereas only 10.8% were Indians. Because universities are knowledge-driven institutions, most of the respondents had Ph.D. degrees, and very few with bachelor’s degrees. This implies that most academics had learned how to do academic research at their Ph.D. level.

Table 2*Respondents' Demographic Profile*

| Items | Characteristics | Frequency | Percentage |
|--------------------|-----------------|-----------|------------|
| Sex | Male | 162 | 51.4 |
| | Female | 153 | 48.6 |
| Age | <40 | 113 | 35.9 |
| | 41-50 | 158 | 50.2 |
| | 51-60 | 40 | 12.7 |
| | >61 | 4 | 1.3 |
| Ethnicity | Malay | 120 | 38.1 |
| | Chinese | 161 | 51.1 |
| | Indian | 34 | 10.8 |
| Level of education | PhD | 227 | 72.1 |
| | Masters | 62 | 19.7 |
| | Bachelor | 26 | 8.3 |

The Result of Measurement Model

Based on the recommendation made by Hsu and Lin (2008), the researcher should proceed with the measurement model first because it helps to enhance the possibility of model fit. The measurement model validates constructs' reliability, convergent validity, and discriminant validity of the proposed model. According to Fornell and Larcker (1981), constructs reliability is ensured by composite reliability and Cronbach alpha. The result shows that the composite reliability of each construct is higher than the threshold value of 0.7 (Hair et al., 2016). In addition, the Cronbach alpha of each construct is also more than the threshold value of 0.70 (Hair et al., 2014). The results of composite reliability and Cronbach alpha show that the constructs' validity of the data is not violated. To ensure that data can meet the convergent validity, two tests were employed, the average variance extracted (AVE) and factor loading tests (Fornell & Larcker,

1981). The convergent validity is achieved in this study because the AVE scores for each construct and factor loading scores of each construct's items (see Table 3) are higher than the threshold value of 0.50 and 0.60, respectively (Hair et al., 2014).

The traditional Fornell-Larcker approach in examining the discriminant validity has been criticized by scholars because it requires consistent factors loading estimates (Benitez et al., 2020). To mitigate the shortcomings, the Heterotrait-monotrait (HTMT) ratio of correlation to determine the discriminant validity with respect to the variance-based estimators is recommended (Henseler et al., 2015). The rule of thumb is the HTMT value of two factors should be below 0.90 or 0.85. Table 4 illustrates the HTMT ratio test results that fall in the range between 0.011 to 0.389, which satisfied the ideal threshold level. Therefore, the result indicates that all constructs are independent, and hence discriminant validity has been achieved.

Table 3*The Result of Confirmatory Factor Analysis*

| Constructs | Items | FL | CR | AVE | CA |
|---------------------------------|--------------|-----------|-----------|------------|-----------|
| Perceived Trust | PTT1 | .86 | .82 | .66 | .78 |
| | PTT2 | .71 | | | |
| | PTT3 | .88 | | | |
| | PTT4 | .70 | | | |
| | PTT5 | .65 | | | |
| | PTT6 | .77 | | | |
| Attitude | ATT1 | .75 | .89 | .76 | .81 |
| | ATT2 | .68 | | | |
| | ATT3 | .65 | | | |
| Subjective Norms | SNS1 | .88 | .78 | .80 | .87 |
| | SNS2 | .87 | | | |
| | SNS3 | .76 | | | |
| Perceived Behavioral Control | PBC1 | .75 | .75 | .82 | .77 |
| | PBC2 | .69 | | | |
| | PBC3 | .88 | | | |
| | PBC4 | .76 | | | |
| | PBC5 | .70 | | | |
| Behavioral Intention to Publish | BIP1 | .67 | .70 | .72 | .81 |
| | BIP2 | .89 | | | |
| | BIP3 | .76 | | | |
| | BIP4 | .82 | | | |
| | BIP5 | .70 | | | |
| Publication to Indexed Journal | PIJ1 | .91 | .81 | .85 | .90 |
| | PIJ2 | .76 | | | |
| | PIJ3 | .85 | | | |

Note: FL (factor loading), CR (composite reliability), AVE (average variance extracted), and CA (Cronbach alpha)

Table 4*Heterotrait-Monotrait (HTMT) Ratio Analysis*

| Constructs | PTT | ATT | SNS | PBC | BIP | PIJ |
|------------|------|------|------|------|------|-----|
| PTT | | | | | | |
| ATT | .031 | | | | | |
| SNS | .050 | .260 | | | | |
| PBC | .059 | .114 | .220 | | | |
| BIP | .389 | .136 | .031 | .016 | | |
| PIJ | .377 | .142 | .011 | .310 | .219 | |

Note: PT (perceived trust), ATT (attitude), SN (subjective norms), PBC (perceived behavioral control) BIP (behavioral intention to publish), PIJ (publication to indexed journal).

Table 5*Goodness of Fit Indices for Measurement Model*

| Categories | Name of measurement | Acceptable threshold level | Result |
|------------------|---|---|---------|
| Absolute fit | Chi-square (χ^2) | ≤ 3.5 to 0 (perfect fit) and ($p > .01$) | 513.697 |
| | Degree of freedom (df) | The higher, the better | 189 |
| | Goodness of fit index (GFI) | ≥ 0.80 | 0.890 |
| | Root mean square of error approximation (RMSEA) | ≤ 0.08 | 0.040 |
| | Root mean square residual (RMR) | ≤ 0.08 | 0.060 |
| | Standardized root mean square residual (SRMR) | ≤ 0.08 | 0.015 |
| Incremental fit | Adjusted goodness of fit index (AGFI) | ≥ 0.90 | 0.950 |
| | Comparative fit index (CFI) | ≥ 0.90 | 0.956 |
| | Normed fit index (NFI) | ≥ 0.90 | 0.921 |
| Parsimonious fit | Chi-square (χ^2)/ degree of freedom (df) | ≤ 3 | 2.720 |
| | Parsimony Goodness-of-Fit Index (PGFI) | > 0.50 | 0.634 |
| | Parsimonious Normed Fit Index (PNFI) | > 0.50 | 0.630 |

To ensure that the relationship between constructs is plausible and acceptable, the measurement model’s goodness of fit was analyzed. Three different categories of fit have been examined, including absolute fit, incremental fit, and parsimonious fit. Absolute fit examines how good the data could fit the model, whereas the incremental fit determines the correlation between different constructs by comparing the chi-square value with the baseline model. Parsimonious fit scrutinizes the fit of competing models on a common basis. To ensure this, the goodness of fit index (GFI), root mean square of error approximation (RMSEA), standardized root mean square residual (SRMR), root mean square residual (RMR), adjusted goodness of fit index (AGFI), parsimony goodness-of-fit index (PGFI), comparative fit index (CFI), and chi-square (χ^2)/ degree of freedom (df) are measured. Table 5 shows that the measurement model of the current study can meet the goodness of fit’s requirement as the scores meet the required fit indices.


Structural Model Result








To scrutinize the Malaysian private universities academics’ knowledge sharing through publishing articles in top-tier journals, hypotheses based on the relative reviewed literature were developed. The study employed a relatively latest statistical AMOS-24 version software to test the proposed hypotheses. The results illustrate the significant relationship between constructs. According to results displayed in Table 6, hypothesis (H1) is supported; perceived

trust is positively related to attitude (estimates equals to 0.601, $P < 0.001$). This implies that academics had formed a favorable attitude towards publication in indexed journals when the element of trust from colleagues and co-authors existed. Similar kinds of results were also observed in different behavioral past studies (Fauzi, Nya-Ling, Thursamy, & Ojo, 2019; García-Sánchez et al., 2019; Hung et al., 2018). Policymakers should provide a better avenue by arranging different training and workshops for employees that can help them to introduce with many colleagues and assist them in understanding their respective research interest. On the other hand, the perceived trust has no significant effect on behavioral intention; thus, our second hypothesis is not supported (estimates equal to 0.315, $P > 0.05$). The result is inconsistent with Dabholkar and Sheng (2012), where they mentioned that consumers’ online purchasing behavioral intention would be increased when consumers had positive trust. However, the possible reason for the current study’s results to show an insignificant relationship between perceived trust and behavioral intention to publish research work could be attributed to the condition that the authors (studied respondents) must have self-confidence rather than depending on or trusting on co-authors.

The results also illustrate that attitude has a significant effect on academics’ behavioral intention to publish research work in indexed journals; thus, H3 is supported (estimates equal to 0.472, $P < 0.05$). Many

Table 6

Hypotheses Testing Result of the Structural Model 

| H | Rapport | Estimate | S.E. | C.R. | P | Remarks |
|----|-----------|----------|------|--|------|---------------|
| H1 | PTT → ATT | .601 | .028 | 1.478  | .000 | Supported |
| H2 | PTT → PIN | .315 | .089 | 2.107  | .153 | Not Supported |
| H3 | ATT → PIN | .472 | .154 | 0.079  | .013 | Supported |
| H4 | SNS → PIN | .539 | .022 | 2.130  | .000 | Supported |
| H5 | PBC → PIN | .691 | .201 | 3.708  | .494 | Not Supported |
| H6 | PBC → PBR | .219 | .015 | 0.290  | .000 | Supported |
| H7 | PIN → PBR | .326 | .048 | 5.733  | .000 | Supported |

Note: H (hypothesis), S.E. (standard error), C.R. (critical ratio or t-value), and P (p-value)

past behavioral studies support this hypothesis by ascertaining that when the respondents have a positive attitude, it that causes them to perform a specific behavior (Al-Kurdi et al., 2018; Fauzi et al., 2018; Jolaei et al., 2014). When academics believe that they would get manifold benefits by publishing research work in indexed journals, their intention will be positively influenced to start writing papers. Besides, hypothesis H4 is supported (estimates equal to 0.539, $P < 0.001$), which means subjective norms has a positive impact on academics' knowledge sharing intention. Generally, the academic job is considered as a noble profession, and if academics do not share their earned knowledge, such behavior will paint "a bad reputation" to society and the nation at large. Thus, academics would have a positive intention if important people, including spouse, parents, supervisors, employers, and colleagues, were to encourage them to write a paper(s) that could be published in reputable journals.

More interestingly, PBC has an insignificant effect on academics' knowledge sharing intention; thus, H5 is not supported (estimates equal to 0.691, $P > 0.05$). However, significant influence is found with actual knowledge sharing behavior that supports hypothesis H6 (estimates equal to 0.219, $P < 0.001$). PBC has a significant effect on actual behavior, which means if academics have self-efficacy and institutional support, they can provide positive feedback by writing a paper(s) that can be published in an indexed journal. However, the possible reason could be the academics' high confidence and self-esteem academics towards starting to write a paper(s) instead of just thinking of writing in the future. It is indeed supported by many past studies that the stronger PBC can lead academics to share knowledge in higher educational institution setting (Al-Kurdi et al., 2020; Charband & Jafari, 2018; Razi et al., 2019). Therefore, the final hypothesis is also supported (estimates equals to 0.326, $P < 0.001$). It indicates that academics' knowledge sharing by writing a paper takes place when they have a positive intention. Most of the knowledge sharing antecedents of TPB significantly indicate that Malaysian private university academics' behavior can be predicted through underlying theory.

Conclusion and Implications

Nowadays, universities are experiencing tremendous challenges in the aspects of public and private funding,

ranking, global competitiveness, knowledge sharing through published articles, and so forth. Policymakers are undertaking different steps to mitigate these challenges by enhancing knowledge management and sharing process. García-Sánchez et al. (2019) mentioned that most of the ongoing problems could be overcome by academics' quality research and publications in international refereed journals. Meanwhile, a large number of past studies mostly examine the issue from either public university, organizational, or developed countries' perspectives. However, Lee et al. (2018) found that Malaysian government universities are doing well in terms of producing a quantity of research, but private universities are better in citations. To provide insightful information to policymakers, we investigated academics' knowledge sharing through behavioral perspectives. The results revealed that attitude and trust could affect the academics' knowledge sharing intention, whereas perceived behavioral control cannot do so. More importantly, PBC can significantly influence academics' publication behavior. If policymakers carefully enhance awareness on academics' knowledge sharing through publications, such an initiative could help the academics as well as the nation at large. We believe that the results will add value to the body of literature that accelerates the Malaysian government's dream to become an Asian educational hub. Future researchers can include additional constructs in this current framework by increasing sample size, and further studies can be directed on academics' knowledge sharing behavior through social media.

Theoretical Implications

The current study's finding acquired manifold contributions to the theory. First, the study has incorporated an additional variable, perceived trust that impacted both attitude and behavioral intention, unlike most of the past studies. The perceived trust construct is rarely discussed in the literature, specifically in knowledge sharing setting. We believe that if trust is absent among academics, a collegiality working environment cannot be materialized. In addition, the study found that PBC constructs significantly impacted on knowledge sharing behavior instead of behavioral intention. The probable reason for this could be that when the academics are confident, they do not bother to be intended; rather, they start writing a paper(s). Most

of the past studies' results are questionable due to the existence of a common method variance problem. To mitigate that problem, this study employed both procedural and statistical approaches, including a common latent factor (CLF) test, which is still less common in the literature. Therefore, we applied a relatively new Heterotrait-Monotrait (HTMT) ratio analysis instead of the commonly used Fornell-Larcker approach to ensure the discriminant validity.

Managerial Implications

Most university authorities seek private or public grants to run their institutions effectively and efficiently. These funds could be attained from internal and external grants by publishing articles in top tier journals by academics. From this study, the management would be able to understand factors that have the most predictive power to impact academics' knowledge sharing behavior. Because promotion and remuneration increments, most of the time, depend on one's quality research, publications, and teaching, policymakers can scrutinize the problems at present and take the necessary steps to overcome. Likewise, the study revealed that attitude and subjective norms have a significant predictive capability for academics' knowledge sharing intention. As a matter of fact, the universities' management should come up with encouraging policies that would help academics to nurture a positive attitude towards sharing their valuable knowledge through publications instead of hoarding it.

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Declaration of Ownership

This report is our original work.

Conflict of Interest

None.

Ethical Clearance

This study was approved by the Scientific and Ethical Review Committee of Universiti Tunku Abdul Rahman (UTAR), Malaysia.

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