

## Knowledge Transfer to Industry: How Non-Accounting Students Learn to Become Boundary Spanners during Industry-Related Collaboration

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### Abstract

Knowledge has become the most important source of competitive advantage, this led to the important role of universities as producers of knowledge. However, the industrial activities of firms do not significantly explain differences in importance of a wide variety of channels through which knowledge between university and industry might be transferred. Therefore, this study focuses on the process by which non-accounting students become boundary spanners remains relatively unexplored. This study serves to shed new light on the matter by drawing on an in-depth study to stimulate industry adoption of a university knowledge transfer particularly on tax education among university non-accounting students. Non-accounting students have no or limited knowledge on taxation, lacking of awareness and knowledge in taxation law will be a problem and burden to them as the future taxpayer. Our rich dataset is a result of following the outcome of 150 non-accounting students from start to finish, in the program known as Hasil My Tax Buddy (HYTB, 2022). Our analyses offer novel insight to understand tax knowledge boundaries faced during engagement activities and a critical input to developing and improving boundary spanning abilities. Our findings offer important tax implications for research on industry-related collaboration and tax awareness.

**Keywords:** Knowledge Transfer, Tax Awareness, Tax Education, Non-Accounting Students, Industry-Related Collaboration

### Introduction

Tax scholars in Malaysia such as Barjoyai (1992); Ho (1992) had called for tax education to be incorporated in all disciplines. Barjoyai (1992) argued that knowledge of taxation is probably more important than knowledge of geography or geometry as taxation is universal. As in Malaysia, direct taxes which consist of income tax, under responsible of Inland Revenue Board of Malaysia (IRBM) are the largest component of national revenue with the contribution of

50% to 55% every year (Zuwan, 2020). The collected funds were used to support national development policies and citizen welfare sustainability in terms of economic, educational, social, and security concerns. In addition, Lin and Carrol (2007) also emphasised the importance of tax knowledge. They assert that if the public does not understand the intent of the tax provisions, it is likely that they will perceive the income tax as unfair. Thus, it is important to identify the best method in transferring the tax knowledge to the public as it will be the basis for them to be aware, understand and know their responsibility as the citizen of Malaysia. It will be a great benefit to the tax system and country if the public can perceive the income tax as fair and tax compliance can be achieved.

Tax systems design, administration and tax compliance at all levels are certainly knowledge demanding activities. However, knowledge transfer in the mentioned area (especially tacit knowledge sharing) are scarcely analysed in the literature (Sestakova, 2017). Taxation, which is very important for governments, businesses and all citizens is a complex reality in search of a supporting knowledge management theory. Knowledge transfer in taxation field can be obtained through schools or university as a formal education and it can also be done through top-down communication that is between the tax authority to the taxpayers as informal education. Sestakova (2017) also mentioned that top-down knowledge transfer within individual tax systems cannot be regarded just as explaining taxation rules and requirements but it should perform also an educational function. Therefore, having fully understanding of tax system from this knowledge transfer is demanded. Otherwise, tax consultants can be hired which will be costly. Refer to the obligations should taxpayers comply with the rules. Being notified and aware is very important to achieve taxpayers' compliance since the compliance guards the government secures paying all of expenditures (Hastuti, 2014).

Generally, the awareness of knowledge transfer issues has attracted great interest amongst academic researchers and policy makers since many years. Anatan (2015) stated on her study that knowledge has become the most important source of competitive advantage, this led to the important role of universities as producers of knowledge. The growing phenomenon shows that many policies are established to promote the transfer of knowledge through university and industry alliance based on the motivation and the resources available.

In another study setting, Schofield (2011) constructed knowledge transfer from university to industry is supported by national governments as part of their innovation, national growth and competitiveness agenda. There is growing interest in knowledge transfer between higher education institutions (HEIs) and industry by policymakers at all levels of government, from regional to international, which has resulted in a range of initiatives (Lockett et al., 2008). To draw attention to a taxation issue, in their research among public universities in Malaysia, Anis Barieyah and Lai (2009) documented that in most universities, tax subjects are included mostly in accounting program or accounting-related fields at the university. However, for the non-accounting students, the exposure to the taxation course is very limited. It was supported by Abdul Halim et al (2015) who indicated in their study that more than 40% of non-accounting undergraduates surveyed have no or little tax knowledge.

### **Problem Statement**

A conceptual and empirical discussion between two opposing ideas concerned with the positive and negative consequences has been sparked by one of the many important issues in the literature on knowledge transfer however they are focusing on general knowledge transfer and not specifically on taxation knowledge. The inconsistent results so far show that there are still many variables to be considered in explaining the effectiveness of knowledge transfer between university-industry alliance performance (Anatan, 2013).

According to Bekkers (2018), results suggest that the industrial activities of firms do not significantly explain differences in importance of a wide variety of channels through which knowledge between university and industry might be transferred. However, since taxation is one of the important agenda for the country, therefore it is important to identify the effectiveness of university-industry knowledge transfer specifically on the awareness of university non-accounting students towards taxation. As non-accounting students have no or limited knowledge on taxation, lacking of awareness and knowledge in taxation law will be a problem and burden to them as the future taxpayer. As mentioned by Anis Barieyah and Lai (2009), only 23.7% of the non-accounting students have knowledge in taxation. Palil (2010) also found that taxation knowledge has a significant impact on tax compliance even though the level of taxation knowledge of respondents varies. Schofield (2011) also conducted research in Africa and found that tax compliance was influenced by tax knowledge. Tax education itself is, generally, only taught in accounting, taxation, or business majors and only taught at the tertiary level. This leads to lower taxation knowledge from non-accounting students, non-taxation, or non-business backgrounds. This indicates that the level of student tax knowledge without tax education tends to be low and that basic tax education can actually increase student tax knowledge (Bernardus and Christine, 2020).

Besides the importance of tax awareness and knowledge, these non-accounting students also need to be exposed and equipped with the information on the main body who is responsible to collect tax for the country that is the Inland Revenue Board of Malaysia (IRBM). Since the exposure on the roles and functions of IRBM is very limited to these non-accounting students, it is important to expose them with all the relevant information for them to at least understand the importance of this body as the government agent in administering, collecting and enforcing tax in the country.

### **Research Question**

1. Does the industry-university knowledge transfer significantly affect the effectiveness of the awareness on taxation among university non-accounting students?
2. Does the industry-university knowledge transfer significantly expose the non-accounting students to the roles of IRBM (which is a body for tax collection in this country).

### **Research Objectives**

Despite growing attention, concerns about information transfer between universities and industry (U-I) have emerged, the opposite knowledge flow from industry to university (I-U) in the academic enhancement is rather neglected. In particular, how I-U knowledge transfer from different sources dynamically contributes to academic enhancement has not gained enough attention. To address this gap, thus, the main objective of this study is to study the effectiveness of the industry-university knowledge transfer specifically in taxation.

Specifically, the study will focus on the following objectives:

1. To study on the effectiveness of knowledge-transfer between industry and university towards tax awareness to non-accounting students.
2. To identify the effectiveness of knowledge-transfer between industry and university in exposing the roles of Inland Revenue Board of Malaysia (IRBM) (which a body for tax collection in this country) to non-accounting students.

### **Driving towards Knowledge Transfer**

The global education process experiencing significant changes, trying to respond to the many needs of the communities it serves. According to Esther et.al (2019), knowledge transfer practices are then defined as the activities that facilitate what is needed to bring knowledge into use in another organisations context, such as, teaching and educating, the management of interactions and sharing data and technology. There is a growing interest in knowledge transfer between higher education institutions (HEIs) and industry by policymakers at all levels of government, from regional to international, which has resulted in a range of initiatives (Anatan, 2015). Similar to the initiative taken for collaboration, which is anticipated to support Malaysia's efforts to build its human capital Malaysia, PETRONAS has teamed up with 15 local universities under its Collaboration with Higher Education Strategic Initiatives (CHESS) programme to catalyse industry-academia knowledge sharing in technical areas aligned with PETRONAS' sustainability goals (Media Press Release, 2021). Geuna and Muscio (2009) said that there are many articles devoted to various aspects of university–industry relationships. The literature has moved from being a niche strand to a dynamic field, with contributions from scholars in science and innovation studies (the original domain), sociology, business studies, economics, history, etc. The claim was backed by Lockett (2008), who mentioned that it was evident from the study that many relationships existed which facilitated knowledge transfer and it could be worthwhile exploring the social and human capital that is required and accumulated by engaging in these activities.

Apart from that, (Wang and Lu, 2007) in their writing mentioned that the development of university-industry knowledge transfer activities embodies a number of institutional and organizational trends as well as government efforts in building up and enhancing firm competitiveness based on effective knowledge creation. The discussion on university's contribution, beside teaching and research in economic development through the transfer of knowledge from university to industry has received great attention in strategic management literature (Anatan, 2013). The success of the collaboration between industries and academics was demonstrated by Tunku Abdul Rahman University's initiative, under programme "UTAR FICT shakes hands with six new industrial partners to develop digital skills." (2021) has produced fruitful results.

Despite growing attention, concerns about information transfer between universities and industry (U-I) have emerged, the opposite knowledge flow from industry to university (I-U) in the academic enhancement is rather neglected. In particular, how I-U knowledge transfer from different sources dynamically contributes to academic enhancement has not gained enough attention. Universities are known as a knowledge transfer organization but the changes in education world needs the industry to collaborate with the university in achieving academic enhancement. In the field of taxation especially, university students as the potential and future taxpayers need to be exposed on the information and knowledge of taxation from

this industry for their academic enhancement, skills and practice. Sestakova (2017) mentioned in his study that knowledge management issues and knowledge transfer in the taxation area (especially tacit knowledge sharing) are scarcely analysed in the literature and are not sufficiently supported by official tax policies. Central tax authorities should explain to lower level (taxpayers) and decentralized authorities the rationale for tax changes, details of compliance requirements, which can include some tacit knowledge. The lack of this communication can lead to problems in the working of tax systems (Jakubek et al., 2016). As mentioned by Palil (2010), knowledge about taxation is assumed to be important for preference and attitudes towards taxation.

As generally taxation knowledge can be obtained through formal education at schools and universities, informal taxation knowledge can be obtained through sharing of information by the industry or responsible authority itself as vertical knowledge transfer from the top (central tax authorities) to the lower levels (tax payers) has traditionally been the basic knowledge flow in individual tax systems (Sestakova, 2017). The research done by Eriksen and Fallan (1996) demonstrated the importance of tax knowledge in a tax system, especially in a Self-Assessment System (SAS). In Malaysia, in the effort to promote better income tax compliance, the Inland Revenue Board of Malaysia (IRBM) has in many years enhancing their policies and activities both through deterrence such as tax audit, penalty, tax investigation, legal action and the taxpayer services programmes such as Self-assessment Learning Programmes, Tax Return Service Month, and Entrepreneur Support Service Programmes. These activities are expected to encourage voluntary compliance among Malaysian taxpayers directly and strengthening the efficiency and effectiveness of the IRBM in improving the level of tax compliance indirectly. With all the effort being made by the IRBM, why do some Malaysian individual taxpayers comply with all the tax law while others do not? Amin et al (2022) claimed that the objectives of the implementation of the SAS do not always come to reality. For instance, Abu Hassan et al (2022) reported a high increment of travel restrictions per year, which indirectly suggests that the issue of tax non-compliance is still occurring in Malaysia. Besides many factors that effecting tax non-compliance in Malaysia, past studies by Amin et al (2022); Hassan et al (2016); Kasipillai et al (2003) have demonstrated that tax education can influence taxpayer compliance. Nonetheless, tax education is only taught to accounting and business management students in many higher learning institutions, including Malaysia. Thus, the tax subjects have not been introduced to all programs at the university besides accounting and business management students. Therefore, undergraduates in non-accounting disciplines who are also the future taxpayers do not have the opportunity to receive tax education (Yusof et al., 2022). Past studies by Hastuti (2014); Mahat & Lai (2011) and Bahari & Lai (2009) agreed that tax education is crucial and pertinent in disseminating tax knowledge, and should be taught in all university programs. Another study by Mustapha et al (2021) found that respondents indicated that the introduction of tax education to non-accounting programmes in Nigerian universities is important and relevant to the development of the nation. It also revealed that tax policy, tax rules and regulation together with tax culture for individuals are the preferred tax areas that undergraduates want to understand. It was supported by Amin et al (2022) who claimed that tax education is essential to ensure that Malaysian college graduates have enough basic tax knowledge to meet their tax obligations, especially as future salaried people.



Therefore, this study aims to address some of the knowledge gap by analysing the importance of university-industry knowledge transfer to the university non-accounting students. This knowledge transfer channel can be explained by the collaborations between university (UiTM Cawangan Melaka) and IRBM especially in transferring tax knowledge to the non-accounting students.

### **Methodology**

The survey method is the main research design for this study to achieve the objectives as it believes that surveys are appropriate for research questions about self-perceptions and behaviours (Neuman, 2003). Data will be collected through google form survey questionnaires that will be distributed to 150 non-accounting students from different program and faculty at Univeriti Teknologi MARA (UiTM), Melaka campus that is Bachelor in Business and Management, Diploma in English for Professional Communication, Bachelor in Art and Design, Bachelor in Communication and Media Studies, Bachelor in Computer & Mathematical Sciences and Bachelor in Hotel & Tourism Management. These students will be selected by their Head of the Study Centre to represent their faculty in the program known as Hasil My Tax Buddy (HYTB, 2022) that will be organised by the Inland Revenue Department Malaysia (IRBM), Melaka branch collaborate with UiTM with the purpose of enhancing knowledge transfer through industry and university. The survey forms will be organised to include questions related to the tax knowledge and it will be distributed before the program starts (pre-survey) and also after the program finish (post-survey). Basically, these non-accounting students have no or limited knowledge on taxation since tax education is not offered in their curriculum and graduation package.

Students need to give their response related to their tax knowledge before and after the HYTB program conducted. HYTB is a program comprising of professional talk on the function of IRBM, the awareness of tax system, tax information on personal income tax and the technical parts in filing income tax. This talk will be conducted and delivered by the IRBM officer. The program will be followed by the outdoor game activities on which students will be divided into 10 groups comprising of ten members for each group. There are 9 games to be completed and for every check point, they will be given questions related to personal income tax. Score will be given for the completion of the games and students need to answer all the questions at the end of the check point number 10. The questions for these games are designed based on the tax knowledge and information given earlier during the morning session talk. This simulation base question is a medium to be used in evaluating the students' tax awareness on filing income tax after they receive information during the morning session.

Rather than receiving information and knowledge through a formal lecture conducted by lecturer in the classroom at the university, students will be redirected to receive knowledge through informal medium that is through industry knowledge transfer. As knowledge transfer can be formal and informal, this study will evaluate on the effectiveness of knowledge transfer on tax awareness from the industry to non-accounting students. Therefore, the survey instrument that will be used to evaluate the effectiveness of this program to the non-accounting students will consist of three parts. Part I consists of demographic background such as faculty and the current semester of students at the university. Part II consists of the evaluation on students' knowledge related to the content of the program which will be constructed with the intention to identify students' knowledge specifically on the awareness

and knowledge of Malaysian taxation system, the understandability of the tax knowledge that will be delivered during the program and the capability in applying the tax knowledge in their job. For each of the statements, a 5-point Likert scale ranging from "1" (strongly disagree) to "5" (strongly agree) will be used. These instruments will be distributed as a pre-survey of the study. Part III consists of statements measuring the effectiveness of the content of the program towards students' tax knowledge, the improvement on the understandability of the content delivered and the capability of students in applying the tax knowledge in their job. For each of the statements, a 5-point Likert scale ranging from "1" (strongly not satisfied) to "5" (strongly satisfied) will be used. These instruments will be distributed as a post-survey of the study once the program completed. Finally, for part IV, students need to evaluate whether the collaboration between industry and university in sharing and delivering information related to tax awareness will give them more benefit in exposing, enhancing and understanding of their tax knowledge.

### **Theoretical and Practical Contributions**

This paper will contribute several theoretical and practical contributions in the field of tax awareness among university non-accounting students. Tax awareness is to diagnose the attitude taxpayer as well as to understand the meaning, function and purpose of the payment of taxes. Therefore, firstly, our findings will elevate the tax awareness, particularly among university accounting students as well as to lead towards tax well-being communities. This is in line with the Rural Development Policy (DPLB) 2030 to promote rational attitudes for the happiness and well-being of society.

Secondly, this paper means to improve the level of tax knowledge, skills and awareness among university non-accounting students with respect to ability to meet current and ongoing tax obligations in order to make the right tax decisions. This is very essential because the decision university accounting students make today can have lasting effects on our community's well-being. By improving the ability, capability and desire of university accounting students to take charge of their tax destinies, stronger communities are fostered to create a brighter future for all and not just a few.

Finally, the paper will be giving emphasis on the university non-accounting students in Malaysia to promote tax awareness for wellbeing of communities, particularly those economic activities that potentially be highly beneficial to a range of households. Improving tax awareness among university accounting students requires a systematic, sustained and coordinated approach that focuses on engendering long-term behavioural change. Therefore, this paper is a key to empowering university accounting students with better tax awareness are able to use their existing tax knowledge and skills to take appropriate actions involving tax planning and activities that could lead towards good tax behaviour.

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