Do University Students' Quality of Learning Engagement Behaviour Matter? An Empirical Insight

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Abstract: Past research demonstrates that quality and value of a tertiary education have been continuously scrutinized by various relevant stakeholders within the global higher education community to ensure effective scholarship of engagement amongst university students. Drawing from the Theory of Planned Behaviour (TPB), this study aims to examine the extent to which psychological factors such as attitude towards learning, lecturers' teaching influences as well as perceived behavioural control on knowledge and skills, affect university students' quality of learning engagement behaviour. A quantitative research design was applied by using a quota sampling technique. From the three hundred (300) survey questionnaires distributed to the undergraduate students, only two hundred and eighty-eight (288) returned feedbacks were usable and subsequently tested for further data analyses using both Statistical Package for the Social Sciences (SPSS) version 23.0 and Smart Partial Least Squares 3.0 - Structural Equation Modelling (PLS-SEM) statistical software. Empirical results revealed significant influences of both undergraduate students' attitude and perceived behavioural control on the quality of learning engagement behaviour. Several theoretical and managerial implications were further discussed in this study.

Keywords: Learning, Engagement Behaviour, Attitude, Teaching Influences, Perceived Behavioural Control, University Students

1. Introduction

Engagement has continually been a research priority within the academic literature as it was widely addressed from many diverse perspectives (Shernoff, Csikszentmihalyi, Schneider & Shernoff, 2014). Drawing upon the seminal Theory of Planned Behaviour (Ajzen, 1991) or TPB, this study intends to further explore the mechanics of engagement by looking at the extent to which psychological factors such as attitude, perceived behavioural control and teaching influences affect university students' learning engagement. By addressing these issues, it would subsequently lead to their improvement in learning performance at the universities. In this study context, engagement is determined by interactions between both the environment and individuals respectively. This is an

attempt to ensure that social and/ or academic changes in class will transform students' perception and engagement behaviour. Past research has suggested that the influence of students' knowledge, skills, belief, mental activity and faculty's teaching on student learning performance and achievements are mediated by engagement. Moreover, the interactions between students and social environment also influence the engagement developed in the students' learning experience. Ismail, Fakri, Mohammad, Nor, Ahmad & Yusoff (2018) for example, found that students acquire the best learning experience if academic lecturers are expected to teach and evaluate their teaching methods effectively.

This research embarks on a three-fold objective: Firstly, it aims to assess the level of perception towards university students' engagement behaviour in learning. Secondly, the study aims to determine whether attitude, teaching influences and perceived behavioural control affect the students' learning engagement behaviour. Finally, the study aims to examine the most significant influencing predicting factor affecting students' learning engagement behaviour. This study further addresses the following research questions:

1. What are the university students' current level of perceptions toward engagement behaviour in learning?
2. To what extent do attitude, teaching influences as well as perceived behavioural control on knowledge and skills likely to affect students' learning engagement?
3. Which predictors significantly influence university students' learning engagement behaviour?

2. Literature Review

Over the recent decades, the quality and value of a tertiary undergraduate education has been continuously argued and studied by various stakeholders associated with the higher education community (e.g. Ismail et al, 2018; Theron & Bitzer, 2016; Umbach & Wawrzynski, 2005). Due to these Higher Educational Institutions' (HEIs) agenda, one of the ascending issues is whether students' engagement in the learning process is promising enough to increase their academic performance. Shernoff et al (2014) mentioned that engagement has been identified as a research priority within the academic literature and was widely addressed from diverse perspectives. The authors found that since the 1990s, the extent to which students are engaged with their studies, as well as what institutions and educators can provide to improve engagement have been well-researched. There have been a variety of approaches used in engagement research.

Despite the widely received attention on this construct, there are still pertinent issues regarding its conceptualization. It has resulted in potential duplication as well as enhanced similarity between engagement and other existing concepts. In addition, there is limited knowledge on the indicators of educational practice that predicts student engagement (Boyaci, Karacabey, Ozdere & Oz, 2018; Zepke & Leach, 2010), or the approaches that a faculty takes to provide effective educational practices (Ismail et al, 2018; Boyaci et al, 2018) in order to create new ways toward measuring and monitoring the quality of undergraduate education.

2.1 Engagement Behaviour

Most of today's institutions, educators and students within the global higher education have been increasingly challenged by their respective governments to contribute toward nation-wide economic achievements. One facet of this challenge is a continuous drive to improve students' success by increasing their participation, achieving high levels of course completion and attaining employment with a positive attitude towards lifelong learning (Yorke, 2006). Shernoff et al (2014) stated that since the 1990s, engagement has been well-researched on how students engage with their studies, and also the extent to which both institutions and educators can do to improve.

There have also been a variety of approaches applied on engagement research. Schuetz (2008) focused on student agency and motivation as factors in engagement. Others highlighted methods in which educators' practice can be relatable to their students (e.g. Boyaci et al, 2018; Umbach & Wawrzynski, 2005; Kuh 2001). Ismail et al (2018), Zepke & Leach (2010), and Porter (2006) highlighted the roles of institutional structures and cultures. Nevertheless, there are others who focused on the socio-political context, to which education and engagement take place (McInnis, 2003;

McMahon and Portelli, 2004; Yorke, 2006), and the impact on students' environmental factors such as family background and economic status (Shernoff et al, 2014; Law, 2005; Miliszewska &Horwood, 2004). In this study, engagement is conceptually construed as a behaviour that individuals desire to achieve within the university learning environment. This in turn, could subsequently enhance their level of academic performance if positive learning engagement behaviour is acquired.

As such, it is crucial to understand the relationship between students' learning and engagement. Learning requires a learner to be actively engaged in the process of learning. Pomerants (2006) mentioned that in adopting this learning concept, teaching instructors need to plan and design out-of-classroom experiences that are directly relatable to identified learning outcomes. Literature reviews have observed several factors that influence students' engagement. At the school level, the size of school and teacher-student ratio matters (Fredericks, Blumenfeld & Paris, 2004). Within the classroom, a positive relationship with the teacher contributes toward students' engagement (Klem & Connell, 2014; Roorda, Koomen, Spilt, & Oort, 2011), as well as structure and clear teacher expectations. Students' engagement is generally fostered in learning environments to which student autonomy is supported, and that there is no punishment observed (Fredricks et al, 2004). Finally, as students become older, engagement usually decreases, particularly during high school (Fredricks et al, 2004; Klem & Connell, 2014).

Research interests in students' engagement have grown over the years. Fredricks et al. (2004) for example, reviewed engagement literature and proposed using it as a meta-construct to group different research viewpoints as one. However, inconsistencies have been observed by the authors in relation to the use of different concepts and terminology linked with the multi-dimensional construct of engagement. In this context of study, there is thus a need to distinguish amongst three types of engagement as proposed by different researchers (e.g. Moreira, Vaz, Dias & Petracchi, 2009, Ryu & Lombardi, 2015; Yenwan & Hooi, 2021; Sultan & Mutlu, 2021;). Research has shown an increasing agreement that student engagement can be conceptualized as a multi-dimensional construct. Ryu and Lombardi (2015) for example, view that there are three primary dimensions of students' engagement being widely embraced nowadays; these include behavioural, cognitive, and emotional dimensions. According to these authors, behavioural engagement refers to consistency in terms of effort, participation, attendance, homework and other desired academic behaviours. Secondly, cognitive engagement reflects an investment in learning, a depth of processing, and/or the use of self-regulated meta-cognitive strategies. Thirdly, emotional engagement denotes students' affections and emotions in schools such as interest, boredom, or anxiety.

In this study, the researchers are inclined to investigate the extent to which behavioural engagement of university students is potentially influenced by psychological factors such as students' attitude, lecturers' teaching influences, and students' perceived behavioural control in terms of knowledge and skilled resources. The following section further explains these constructs based on TPB model. To reiterate, engagement is accordingly construed as behaviour that students intend to achieve within a university learning environment, to which it could potentially elevate their academic performance if positive learning engagement behaviour has been developed.

2.2 Theory of Planned Behaviour

The TPB symbolizes a theory that links individual beliefs and behaviour. Icek Ajzen (1991) highlighted that the Theory of Reasoned Action (TRA) developed by Fisbein & Ajzen (1975) had previously proposed this concept. In improving the predictive power of TRA, few dimensions were added including perceived behavioural control. Following the inception, the extended framework of TRA was later known as TPB. Until today, the TPB as illustrated in Table 1 is regarded as one of the most predictive persuasion theories. It has been applied to studies that examine the relationship among beliefs, attitudes, behavioural intentions and actual behaviour in various fields such as psychology, advertising, public relations, advertising campaigns and healthcare (Ajzen, 1991, 2002).

The theory states that attitude toward behaviour (ATT), subjective norms (SN), and perceived behavioural control (PBC), may predict an individual's behavioural intentions and actual behaviours. For attitudes toward behaviour, an individual's positive or negative evaluation of self-performance

regarding such behaviour is fundamental. The concept herewith is in reference to the degree to which performance of said behaviour is either positively or negatively valued (Ajzen, 1991, 2002). It is determined by a total set of accessible behavioural beliefs linking the behaviour to various outcomes and other attributes. While subjective norm is used to test an individual perception about the behaviour, it is evidently influenced by the judgment of significant others (Ajzen, 2002). This dimension presumably examines how individuals' decision is being affected by other people's influence instead of making their own decisions. PBC is an individual's perceived ease or difficulty in performing a said behaviour. It is assumed that perceived behavioural control is determined by the total set of accessible control beliefs (Ajzen, 1991). Figure 1 illustrates the TPB model.

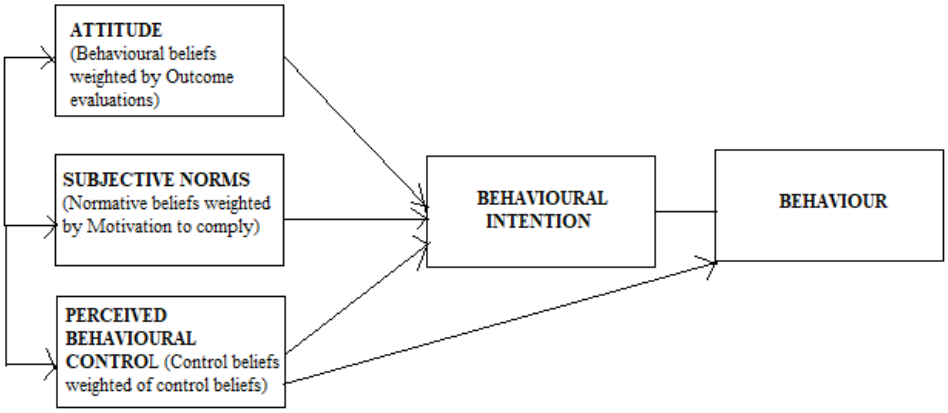

Fig. 1 Theory of Planned Behaviour Model by Icek Ajzen (1991)

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2.2.1 Attitude

Pierce et al (2007) emphasizes that the process of defining attitude composition is quite challenging. Nevertheless, Ulloa &Adams (2004) defined attitude as the willingness of an individual working in a team. According to Ursini & Sanchez (2008) attitude has three components, that is, cognitive, affective, and behavioural elements. Precisely, the three components comprise of cognitive which explained conscious beliefs, followed by value that explained emotional, and finally action which explained behavioural dimensions (Chen et al, 2002). Al-Sheeb et al (2018) investigated the impact of university students' first-year seminars by using students' motivation and their attitudes towards social involvement. According to Yale (2000), students who are exposed to first year seminar would have more interaction with teachers and peers, are fully utilising services rendered by the faculty and are also committed. While Volet et al (2019) on the other hand, investigated the diversity of attitudes toward students' engagement, and found that the differences in role analysis of attitude (group-related and activity related) influenced students' individual and group engagement. Ng & Fong (2020), Ng. et al (2016), and Bidin et al (2011) further found that attitude is statistically significant in influencing the behavioural intention of students in Malaysian Universities. These intentions include career intention, entrepreneurial intention, and intention to use internet for learning purposes respectively.

As the theory underpinned this study, TPB includes beliefs, which acts behind each of the three major determinants. Exploration of these beliefs (behavioural beliefs, normative beliefs, and control beliefs) requires specific observations. These beliefs in the TPB model enables the linkage of personal values and attitudes because people's attitudes are formed by specific beliefs about the attributes of a given object and individual evaluation. Nevertheless, students' belief systems can also be viewed as a direct measure of attitudes to determine whether these beliefs may hold truth in predicting the engagement

behaviour (Fishbein & Ajzen, 1975; Ajzen, 1991). Sutter and Paulson (2016) and Schuetz (2008) found that motivation and student agency act as determining factors in the acceptance of learning engagement. In this study, beliefs are measured directly in terms of students' attitude towards actual learning engagement.

2.2.2 Subjective Norm

Subjective norm is the subjective perception of individuals (Fishbein and Ajzen, 1975), and is the extent to which behaviour performance is either supported or not supported by significant others. In entrepreneurial activities, subjected norm is commonly measured by the extent of supports given by closest one – family members, friends, or colleagues (Li-an & Chen, 2013; Ajzen, 2001). It is likely that a said behaviour will be performed if individuals believe that significant others want them to perform, or if they feel that they should perform a behaviour because their significant others are doing it (Sutter & Paulson, 2016). According to Mackay, White & Obst (2016), subjective norm is influenced by an underlying normative belief of the significant others' approval to perform any given behaviour. It is also referring to perceived social pressure of either performing a behaviour or not (Ho & Kuo, 2009, Putit & Muhammad, 2015; Sutter & Paulson, 2016).

Armchambault et al. (2017) found the importance of a student-teacher relationship in fostering all students' engagement in school. The authors reported that behavioural engagement of girls was more beneficial if they have warm relationship with a teacher, while the emotional engagement of boys was more harmful if they have frictional student-teacher relationship. Baker, Grant & Morlock (2008) on the other hand, found that adverse relationship such as conflict and disharmony have resulted in decreased students' engagement and classroom avoidance. Theron and Bitzer (2016) emphasized that academic success of university students is not entirely dependent on classroom teaching and information transfer, but also at institutional level (that is, in-class or out of-class learning) as a result of the "new generation" characteristics of students.

In getting students to acquire the best learning experience, university lecturers are expected to teach and evaluate their teaching effectively (Ismail et al, 2018). The authors have used seven aspects of Teacher Behaviour Inventory (TBI), namely, organization, speech-pacing, clarity, enthusiasm, interaction, rapport and disclosure. These aspects were rated by medical students to evaluate their lecturers' teaching effectiveness. The highest rated TBI aspects were organization and speech-pacing, whereas the lowest was the disclosure aspect, while the other aspects attained satisfactory level. The authors also suggested improvement to some teaching behaviour. De Jager & Bitzer (2013) emphasized that multiple factors influenced teaching in higher education. The factors included students and lecturers' characteristics, disciplinary contexts, institutional cultures, as well as teaching and learning approaches. It was found that when evaluating teaching effectiveness, students' feedback is an important indicator in comparison to other techniques such as peer ratings, self-evaluation, employers' ratings and teaching portfolios. Furthermore, students' feedback on teaching and courses was considered a simple and practical method to assess weak and strong teaching elements.

Teaching quality is one of the important factors for students' attrition and learning disinterest (Habley & McClanahan, 2004). For example, Boyaci et al (2018) found that weak students' engagement leads them to change university. The students changed university due to their argument that they were given low quality lectures by either instructors or research assistants. The low-quality lectures were a result of lacking content knowledge, teaching skills, motivation and evaluation practices. As such, it is postulated that in this study, lecturers' teaching influence in the form of their teaching methodology is expected to have a significant influence on students' engagement behaviour in learning.

2.2.3 Perceived Behavioural Control

Individuals' perceived behavioural control reflects an extension of TRA model. It was included to form the seminal TPB developed by Icek Ajzen. In order to perform a behaviour of interest, people will perceive its performance in terms of difficulty and ease, as well as compared to past experience reflections and resources (e.g., money, time, skills and co-operations of others) assumptions (Ho and Kou, 2009). PBC is derived from control beliefs (Ajzen, 2012) and refers to individual's perceived degree of difficulty to perform behaviour and the abilities to perform behaviour (Sutter & Paulson, 2016). PBC is described as the perceived probability of achieving specific task with regards to performance success (Dinc & Budic, 2016).

In ensuring competition and market economy purposes, potential employment needs people with appropriate international knowledge, skills, and abilities (KSA) (Prestwich & Ho-Kim, 2007; Stivers, Veliyath, Joyce & Adams, 2010). There are 8 managerial KSA; business area knowledge and skills, communication skills, creativity/adaptability, ethics, leadership, problem solving, teamwork and work habits. Nkhoma, Sriratanaviriyakul, Cong & Lam, (2014) used students' course engagement questionnaire to examine engagement in skills, emotions, participations, and performance. The authors found that there was a positive influence of KSA on students' engagement in skills and emotions. Liu, Chen, Lin and Huang, (2017) suggested that sustained students' engagement in participatory learning programs and leveraged knowledge acquisition were due to a result of principled remix practice.

The present study adapted Icek Ajzen's (1991) TPB as key determinants of university students' engagement behaviour in the learning process. Attitude, teaching influences as well as perceived behavioural control on knowledge and skilled resources are hypothesized to affect university students' learning engagement behaviour.

H1 – Attitude significantly affects university students' engagement behaviour in learning.
H2 – Lecturers' teaching influences significantly affect university students' engagement behaviour in learning.
H3 – Perceived behavioural control on knowledge and skills significantly affect university students' engagement behaviour in learning.

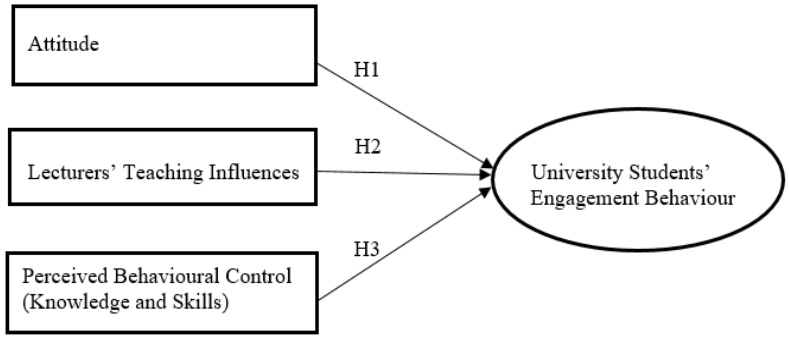

Fig. 2 Theoretical Framework of the Study

3. Research Methodology

This study has adopted a quantitative research design via non-probability quota sampling approach. Control characteristics such as academic discipline, academic program, semester, and common courses were applied in filling the quota sets. This was to ensure that the proportions of sample elements were proportionate to the target population compositions (Sekaran & Bougie, 2013, Malhotra,

2019). Using a 5-point Likert scale measurement, several item measurements were adopted from relevant prior studies and adapted to operationalize identified constructs for the investigated model.

A total of 300 self-administered survey questionnaires were distributed to targeted respondents consisting of undergraduate university students from the Faculty of Business and Management (FBM) discipline at a local public university in the state of Selangor, Malaysia. However, only 288 feedbacks were subsequently used for data analyses. Descriptive and inferential statistics were applied using SPSS version 23 and PLS=SEM via Smart PLS 3.0 analytical procedures (Bido, D., da Silva, D., & Ringle, C., 2014; Ringle et al, 2005).

4.0 Data Analysis and Findings

4.1 Demographic Profile

Based on 288 usable data, a frequency analysis was carried out to describe the demographic profiling of target respondents. Table 1 highlights the demographic profile of targeted respondents who have participated in this study. In terms of gender, the highest percentage was female (71.9%) involving 201 respondents followed by male (28.1%) involving 81 respondents.

Most of the respondents were born between the years of 1996 – 2000 at 193 (67%) followed by those born in between 1991-1995 at (33%). The levels of education for the study are final year undergraduate students from the Faculty of Business and Management, Universiti Teknologi MARA, to which all targeted respondents have equal distribution of survey questionnaires. In terms of expected grades, majority of the students are expecting an A grade at n=124 (43.1%) and the lowest being n=1 or C (0.3%).

Table 1. Demographic Profile

Profile	Descriptive Profile	Frequency N=288	Percentage
Gender	Female	207	71.9
	Male	81	28.1
Birth date	1996 – 2000	193	67.0
	1991 - 1995	95	33.0
Level of Education	Undergraduate	288	100.0
HEI Academic Discipline	Business & Management	288	100.0
The Academic Programs	*BA 241*	20	6.9
	BA 242	20	6.9
	BA 249	20	6.9
	BA 250	20	6.9
	BA 231	10	3.5
	BA 234	20	6.9
	BA 240	20	6.9
	BA 245	20	6.9
	BA 235	20	6.9
	BA 236	18	6.3
	BA 243	20	6.9
	BA 246	20	6.9
	BA 232	20	6.9
	BA 244	20	6.9
	BA 247	20	6.9

Expected Grades	A+	86	29.9
	A	124	43.1
	A-	48	16.7
	B+	16	5.6
	B	9	3.1
	B-	2	.7
	C+	2	.7
	C	1	.3
CGPA	3.50 - 3.99	59	20.5
	3.00 - 3.49	143	49.7
	2.50 - 2.99	86	29.9
	2.00 - below	0	0

Note: BA 241 Bachelor of Business Administration (Hons) Insurance, BA 242 Bachelor of Business Administration (Hons) Finance, BA 249 Bachelor of Business Administration (Hons) Islamic Banking, BA 250 Bachelor of Business Administration (Hons) Business Economics, BA 231 Bachelor of Business Administration (Hons) Entrepreneurship, BA 234 Bachelor of Customer Service Management (Hons), BA 240 Bachelor of Business Administration (Hons) Marketing, BA 245 Bachelor of Business Administration (Hons) Retail Management, BA 235 Bachelor of Health Administration (Hons), BA 236 Bachelor of Event Management (Hons), BA 243 Bachelor of Business Administration (Hons) Human Resource Management, BA 246 Bachelor of Business Administration (Hons) International Business, BA 232 Bachelor in Office Systems Management (Hons), BA 244 Bachelor of Business Administration (Hons) Operations Management, BA 247 Bachelor of Business Administration (Hons) Transportation.

4.2 Descriptive Statistics

Descriptive statistics and correlations of the main constructs were carried out in this study. Initial descriptive statistics provide a first look at the main constructs in the model as shown in Table 2. It reveals the target respondents' current level of perception towards the respective constructs in this study. Majority are generally agreeable in their perceived opinions, to which the average mean values are generally above 3.5 and standard deviation values are above 0.5 values respectively.

Table 2. Mean and Standard Deviation Value

Constructs	N	Mean Value	Standard Deviation Value
Students' Engagement Behaviour (ENG)	288	3.6111	.53579
Students' Learning Attitude (ATT)	288	3.6921	.58113
Perceived Behavioural Control (PBC)	288	3.9085	.54630
Lecturers' Teaching Influences (LI)	288	3.5352	.59473

Attitude toward engagement behaviour is averagely positive. On the other hand, students perceive relatively low teaching influence from lecturers to engage in the learning process and students are, on average, highly confident about their ability to engage in learning. Perceived behavioural control on skills and knowledge further shows an average positive value. The same holds true for the engagement construct with a high average value.

The average Cumulative Grade Point Average (CGPA) value for students reaches an above average level and aggregated in nature. Upon asking about their expected results for this course, that is, Strategic Management, students were expecting an 'A'. Frequency of engagement for all the selected goods are correlated (that is, correlation coefficient matrix includes values in range 0.28–0.33 and the coefficients are statistically significant for $p < .01$).

4.3 Measurement Assessment

4.3.1. Content validity

Straub (1991) stated that content validity of a survey instrument can be established through the adoption of validated instruments by other researchers in the literature. In this study, items concerning attitude, subjective norms, perceived behavioural control, and engagement behaviour were adopted and adapted based on the original TRA and TPB models (Ajzen, 2002, Ajzen, 1985; Fishbein & Ajzen, 1975). The measurement items were further tested for consistency, ease of understanding, and sequential appropriateness by a pre-test of 3 experts from different specialty areas.

4.3.2. Internal Consistency Reliability

In this study, internal consistency reliability to test uni-dimensionality was assessed by Cronbach's alpha and item-total correlations. One item measuring perceived behavioural control (PBC) construct with an item-total correlation value lower than 0.5 was dropped. The resulting alpha values ranged from 0.79 to 0.9. The composite reliability, as shown in Table 3, was above the acceptable threshold (0.70) as suggested by Nunnally and Bernstein (1994).

4.3.3 Convergent Validity

Using PLS-SEM statistical software, both convergent validity and discriminant validity have been carried out in measuring the model. The convergent validity of the measurement is usually ascertained by reviewing the loadings, the average variance extracted (AVE) and composite reliability (CR). The result showed loadings above 0.7; CR were all higher than 0.7, and the AVE were also greater than 0.5 (Hair et al., 2014) as shown in Table 3 below. 8 items were deleted due to low loadings.

Table 3. Convergent Validity

Construct	Item	Loadings	*CR*	*AVE*
Attitude (ATT)	ATT1	0.702	0.896	0.553
	ATT2	0.723		
	ATT3	0.788		
	ATT4	0.763		
	ATT5	0.773		
	ATT6	0.743		
	ATT7	0.710		

Perceived Behaviour Control (PBC)	PBC2	0.720	0.863	0.558
	PBC3	0.710		
	PBC5	0.727		
	PBC6	0.805		
	PBC7	0.769		
Lecturers' Influence (LI)	LI2	0.725	0.881	0.650
	LI4	0.835		
	LI5	0.832		
	LI6	0.829		
Students' Engagement Behaviour (ENG)	ENG4	0.792	0.850	0.654
	ENG5	0.837		
	ENG6	0.798		

Note: CR composite reliability, AVE average variance extracted

4.3.4 Discriminant validity

Discriminant validity of the measurement criteria was used in comparing the correlations between constructs and the average variance extracted from that construct (Fornell and Larcker, 1981). Table 4 below shows that all values of the square root of average were greater indicating that the measures were discriminant.

Table 4. Discriminant Validity

Construct	Students' Engagement Behaviour (ENG)	Lecturers' Influences (LI)	Attitude (ATT)	Perceived Behaviour Control (PBC)
ENG	0.809			
LI	0.162	0.806		
ATT	0.448	0.513	0.744	
PBC	0.356	0.470	0.605	0.747

Note: Values on the diagonal (bolded) are square root of the AVE while the off-diagonals are correlations

Data analysis was subsequently carried out to test the relationship between independent and dependent variables. The result demonstrates that two hypotheses, H1 ($\beta = 0.413$, $p < 0.05$) and H3 ($\beta = 0.166$, $p < 0.05$) were accepted, thus indicating both attitude and perceived behavioural control have significant relationships with students' engagement behaviour. It was further revealed that attitude is the strongest predictor followed by perceived behaviour control. Meanwhile, H2 ($\beta = -0.128$, $p < 0.05$) was not accepted, suggesting that academic lecturers' teaching influence has an insignificant

relationship with engagement behaviour. The overall adjusted R^2 of 0.28 were above 0.13 value as suggested by Cohen (1988), indicating a moderate model. Furthermore, Hair et al., (2014) stated that if only 3 independent variables (IVs) and dependent variable (DV) are presented as of a minimal model complexity, it is unsurprising to have a moderate R square value. Also, other variables were not included in the model to explain engagement behaviour.

Table 5 further documents summarized results of the hypotheses testing, generally indicating that university students' quality of engagement behaviour is mainly driven by both students' positive attitude and their perceived behavioural control toward the engagement behaviour in learning.

Table 5. Summary of Hypotheses Testing

Hypothesis	Relationship	Std Beta(β)	t-value*	R^2	f2	Decision
H1	Attitude → Students' Engagement Behaviour	0.413	5.726	0.28	0.124	Accepted
H3	Perceived Behaviour Control → Students' Engagement Behaviour	0.166	2.216		0.021	Accepted
H2	Lecturers' Teaching Influence → Students' Engagement Behaviour	-0.128	1.849		0.015	Rejected

Note: *p< 0.05

5. Discussion

The current study examined undergraduate students' engagement behaviour in learning at a public university in Malaysia based on their respective attitude, lecturers' teaching influences and perceived behaviour control on knowledge and skills. The study specifically focused on the issues of potential significant correlations between the said variables and students' engagement. Also, it further analysed the extent to which these influencers affected students' engagement behaviour; and to determine the most significant predictors of engagement behaviour in this study.

The TPB was used extensively to predict behavioural intentions in many different settings (Ajzen and Driver 1992; Liaw, 2004), but the behavioural predictions may vary in different contexts or applications. Results from this study found that TPB indeed predicted students' learning engagement by having students' attitude and perceived behaviour control supported. Nonetheless, subjective norm was not a significant predictor. The overall findings in this study indicate that students' attitude and perceived control have significantly contributed to the students' engagement behaviour with the exception of lecturers' teaching influences. Further to that, attitude is found to be the most significant predictor of university students' engagement behaviour.

The undergraduate students' positive attitude was found to significantly influence their engagement behaviour in learning. This result supports past research findings (e.g. Ng & Fong, 2020; Theron & Bitzer, 2016; Ng et al, 2016; Bidin et al, 2011). Ng & Fong, (2020); Ng et al. (2016), and Bidin et al. (2011) for example, have found that attitude is statistically significant in influencing the students' behavioural intention in Malaysian universities. Their studies were focused on career intention, entrepreneurial intention, and intention to use internet for learning purposes respectively. This finding will thus assist the university concerned to have more programmes outside the academic curricular in an attempt to further enhance students' attitude since it contributes to their engaging behaviour in the classroom.

Lecturers' teaching influence, however, was not significantly affecting students' engagement. There were no positive and significant relationship observed between lecturers' influences and students'

engagement. Previous studies supported this result, by having no direct positive and significant relationship between subjective norms and entrepreneurial intention (Dinc & Budic, 2016). This finding also supported Leibowitz (2009) to which socio-cultural perspective on engagement in deep teaching and learning relationship is seen as complex and uneven. Furthermore, the study supports Boyaci et al., (2018) findings on educational aspirations as one of the factors that have a negative effect on students' engagement. For this study, lecturers' teaching influence was clearly stated as the subjective norm. As such, it is interesting to note that lecturers do not have influence on the students engaging behaviour. In view of this, teaching methodology on delivery of courses needs to be inclusive of information external to the classroom such as invited speakers, videos of current and relevant information, games as well as leveraging on information technology as teaching mechanism. Lecturers will also need to curate their classes well to create the excitement in making the students engage in class.

PBC on knowledge and skills significantly influenced students' engagement. This study suggested that if university students have higher beliefs about their own knowledge and skills, their learning engagement will increase. This result is consistent with the positive findings of many previous studies to which PBC acted as a significant predictor on women's entrepreneurship intention (Dink & Budic, 2016), entrepreneurship intention (Ng et al., 2016), students' intention to graduate (Sutter & Paulson, 2016), students' career intention (Ng & Fong, 2020), and intention to use internet for learning purposes (Bidin et al., 2011). Nevertheless, this result contradicted with MacKay et al., (2016) where PBC was not a significant predictor of engagement intention of online micro volunteering. They suggested that behaviour may have students' control consideration. One possible reason for this outcome in this study is the various motivational, leadership and self-awareness programme conducted in the faculty either as a university's program, faculty's programme or programme under students' society.

6. Conclusion

In essence, it can be concluded that university students' engagement would be only be increased based on student's individual psychological factors. These factors include students' personal attitude toward learning, and whether they have adequate perceived control on knowledge and skilled resources to engage in the learning process. However, subjective norms were not a significant predictor. Lecturers' teaching influences did not play an imperative role in students' engagement due to its complexity and uneven relationship, and also due to students' preference of utilizing technology within this millennial period that would further enable them to engage more actively via other forms of teaching and learning mechanism apart from the basic 'chalk and talk' or conventional teaching pedagogical concept. The study has observed several limitations. The sample was limited to one public university in Malaysia that focused only on business and management undergraduate students. The research methodology was also solely focused on quantitative analysis, hence resulting in a need to consider qualitative methodological approach. It is suggested that further research can be conducted in other universities and faculties respectively to ensure a sense of generalizability.

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