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GAMIFICATION AND THE CHALLENGES OF DIGITALISATION ON EMPLOYEE ENGAGEMENT, THE CASE OF ACADEMICIANS IN PRIVATE HIGHER EDUCATION INSTITUTIONS (PHEIS) KLANG VALLEY, SELANGOR.

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Abstract:

The focus of this paper is on Private Higher Education Institutions (PHEIs) in Klang Valley, Selangor, which also analyses digital receptivity, digital culture, employee engagement, and the digital revolution. The education sector has undeniably undergone a vigorous digital transformation and modernization. This has improved students' learning experience by making the delivery of the syllabus more sophisticated and engaging. The effects of digitalization and employee engagement on the academicians have received less attention than the effects of digitalization and modernization on pedagogies. Researchers have shown that faculty members act as "gatekeepers" to workplace engagement, which in turn affects employees' levels of enthusiasm, commitment, and focus. Two areas of unfilled research are the focus of this study. Firstly, this thesis examines the gap in the lack of research on the role digitalisation and employee engagement in PHEI among academicians. Secondly, to examine the digitalisation transition involving the gatekeepers. The result of this study underpins a possible solution for enhancing task characteristics (psychological meaningfulness), management style and process (psychological safety), and insecurity (psychological availability). The researcher examines the academics' attitudes about digital technology between gamification, and employee engagement. Despite the large number of studies done to prove the link between the factors, it has become clear that most of these studies were carried out in non-Western settings. To rephrase, further research into the correlation between digitalisation and employee participation in specific regional contexts is required. To understand the lack of research addressed between digitalisation and employee engagement in PHEI among academics, and to evaluate the transition of digitalisation with gamification, it is necessary to undertake this study. The working hypothesis and conceptual framework for this inquiry have been formed via careful examination of the literature and ideas. Survey results will be evaluated for potential future relevance using partial least square-structural equation modeling (PLS-SEM)

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methods. Attempting to fill up the gaps in gamification evaluation, measurement, comparison, and construction, this paper stands out.

Keywords:

Academicians, Digitalisation, Employee Engagement, Gamification, PHEI

Introduction

In the converts of PHEIs of Klang Valley, Selangor, both the opportunities and risks exist in the gamification and digitalization regarding employee engagement particularly the academicians. One of the problems identified is the question of how to incorporate gamification into the concepts of employee gamification. Incentivization is becoming more popular to increase engagement and performance in different fields such hybrid learning and business through game elements incorporated into learning and working activities. But all too often, institutions fail to achieve these goals and deal with problems regarding how to apply the mentioned strategies. For example, a study from Mambo.io (2023) shows that ineffective gamified systems do not have to meet the learning aims of the institution, causing learners to lose their motivation instead of having it boosted. Besides, the placing of important value on rewards in gamification without defined and specific learning goals distorts motivation and, in this case, decreases the involvement of academic staff. The other challenge is the continued digitisation of working environment. The use of web-based platforms has had its advantages and disadvantage with regard to engaging employees. Getting connected through new technology, means new means of shifting information, and new means accessing materials, nonetheless new challenges of Digital fatigue, and stress from constant engagement emerge (SpringerLink, 2023). This kind of hindered work-life balance is particularly prevalent in academia where failure to implement workable systems to support digital workloads could foster constant digital engagements leading to burnout. These issues need prudent approach to the design of gamification and relevant technologies so that people can be engaged without creating overwhelming burden on the academic staff.

COVID19 brought realisation to the education industry on the importance of digitalisation. This research intends to examine whether digitalisation can be part of EE in PHEI among the academicians. COVID19 struck without warning, with little or no planning in place. The epidemic had a significant impact on all sectors, including education1. Academicians at the PHEI began exploring all types of available digital apps and platforms (UNESCO, 2020) within days of the digitalisation adoption, including GoToMeeting, Skype, WhatsApp, Teams Meeting, and Zoom, in addition to the digitalisation platform. Academicians could engage with one another based on the generally pleasant experience with many colleagues through the digital platform. Globally, scholarly views on the topic were more contentious, the reality remains that digitalisation had been prevalent and evident for years recently to the epidemic (Laufer et al., 2021).

1The researcher has no intention to relate the research with COVID19 in the early stage however this research now has become a need to be examined since digitalisation has become an urgency to the whole world.

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Due to its emphasis on practical components, e-learning was not the preferred approach employed by academicians in (HEI) prior to the COVID-19 epidemic. Research by the UNESCO-UNEVOC International Centre (2020) found that out of 126 nations, nearly a third of respondents did not use any online learning at all, another third did so rarely, 17 percent did so regularly, and only 11 percent did so extremely frequently. However, because of the lockdown and the COVID-19 epidemic, the majority of HEI must switch from traditional teaching techniques to online learning. Academics are required to adapt to new teaching methods as a result of the radical transformation that this ad hoc approach causes in their teaching strategies. Some academics can be unprepared to use e-learning and incorporate ICTs into teaching and learning (TandL). This is reinforced by Carnevale and Hatak (2020), who claim that certain academicians lack basic knowledge of how to use e-learning facilities and need training in these skills.

According to Groening and Binnewies (2019), gamification is being acknowledged more and more as a successful learning method that may be utilised to create engrossing learning sessions. The increasing use of digital games in education has attempted to strengthen gamification's capabilities to stimulate motivation, engagement, and social effect while allowing students to fully engage in experiential learning, as shown by empirical evidence from current research. The recent surge in interest in gamification among academics and research networks has prompted an in-depth investigation of how different gamification elements can be incorporated into instructional design to yield more interactive and rewarding learning experiences and better outcomes for the learners (Kyewski and Kramer, 2018; Keric et al., 2019). However, despite the positive impact that technology has had on education and learning, gamification pedagogy still struggles to secure adequate funding and support (Ding at al., 2018). Further, gamification is a cutting-edge teaching strategy (Goeksuen and Guersoy, 2019).

Since the concept of gamification in education is continually evolving, it is important to address the problems that it raises in order to create a more mature understanding in educational perceptions, however, the digitisation element faces with EE field of unintentional digital culture, which are age and gender. The researcher will further explore these gatekeepers that hinder the digitisation elements on EE in PHEI.

Problem Statement

The research conducted by Aon Hewitt Trends in Global Employee Engagement (2018) indicates that Malaysia is experiencing a progressive upgrade in employee engagement, with a notable peak of 63% in 2018. Malaysia scores the lowest in the Asia-Pacific area when compared to nearby nations like Indonesia and the Philippines. This demonstrates that for employee engagement in the global component to persist in an organisation, considerable obstacles must be overcome.

Malaysia's healthcare, governmental, and corporate sectors have done research on employee engagement (Ganesan, Azli and Fageeh, 2017; Mansor, Jaharudin and Nata, 2018). However, there are few studies on employee engagement in the private sector in Malaysia, particularly in the PHEI, indicating that there is no research indicating the EE in the long run in Malaysia, particularly in the PHEI, as this EE has been observed in research with students' engagement levels in schools or universities, but not among academicians (Kahu, Picton, and Nelson (2019); Kuh (2009). Both professors and students have found the experience to be challenging. It's important to learn about the student experience during this time to prepare for future PHEI

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interruptions and to understand how COVID-19 shaped students, especially since research has shown that COVID-19 has a significant impact on mental health, engagement, and wellbeing in the general population (White and Van Der Boor, 2020). However, this shows that the impact and changes were focused on PHEI students rather than the Academic Engagement Levy. This is where there is a disconnect between employee engagement and digitalisation. As a result, the researcher's goal in the current study was to investigate the PHEI industry and determine how factors like digitalisation and digital culture impact employee engagement.

The COVID-19 epidemic triggered abrupt and profound changes all around the world. The outbreak precipitated a vast, fast, and severe digital shift in society. According to several studies (Godhe et al., 2019; Kinnula et al., 2015; OECD, 2012; Smith et al., 2018; Vainionpää et al., 2015), the pandemic pushed PHEI to make a remarkable digital leap in daily settings. Due to the tremendous growth of e-learning, where instruction occurs online and through digital platforms, as well as the advent of digitisation, PHEI has also seen a significant transformation (TheStar, 2022). In order to track the digital transformation brought on by the COVID-19 epidemic about EE in PHEI, this research will concentrate exclusively on academics of the researcher's interest.

Moving forward, the researcher will study on the first gap of this research the lack studies between digitalisation and EE among academics in PHEI where to ensure that PHEI is well-equipped in digitalisation in transiting to changing circumstances and future EE in PHEI. It is crucial to understand the second gap of this research on barriers academicians must face during this transition to digitalisation, so PHEI needs to more inclusive and often measure the EE via digital elements. Most institutions have moved all teaching online in response to the pandemic, but it is crucial to also measure the level EE among academics, not only to inform future teaching practise, but also to ensure through digitisation and EE. The figure below, summarised the problem statement of this research:

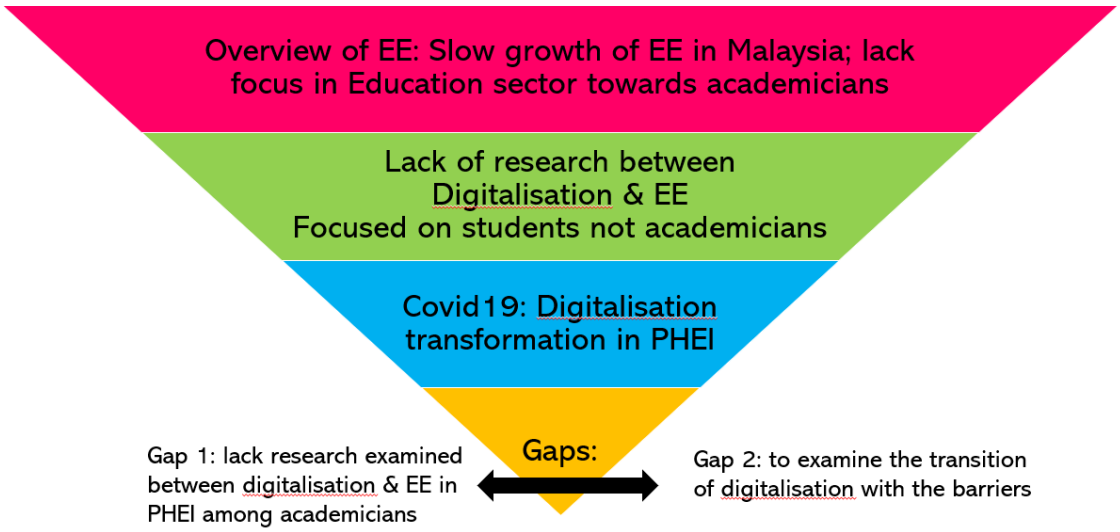

Figure 1: Diagrammatic Illustration Of Digitalisation And EE's Gaps

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Since digitalisation has entered all areas of life, it should be made clear, at the latest during the pandemic COVID -19, how important the digital sphere is for supporting and understanding digitalisation, especially from the perspective of companies EE. Figure 1 explains the overall scenario of this research from the slow growth of EE in Malaysia, identifies with lack of research between digitalisation and EE mainly before this focused-on students' engagement and not the academicians' engagement with colleagues' perspectives. Hence, rapid growth on digitalisation took place in the emergence of Covid19 that urges all sectors including the education to fast forward implement the digital aspect in PHEI however two gaps were derived from this research where gap 1 identifies on lack of engagement research carried between the digitalisation and EE and the gap 2 the researcher will focus on to examine the transition of digitalisation with the interference of barriers which are the age and gender in PHEI, Klang Valley, Selangor.

Research Objectives

Following closely the theoretical framework and the need to address the gaps raised in the problem statement, this research purpose is:
RO1: To examine the relationship between gamification and employee engagement in PHEI , Klang Valley, Selangor.

Research Questions

Based on the research objectives above, this thesis addresses four research questions as follows:
RQ1: how does gamification correlate with employee engagement in PHEI, Klang Valley, Selangor?

Literature Review

Underpinning Theories

This study suggests a motivational regulatory continuum spanning from amotivation to controlled with new aspects, digitalisation elements in PHEI (Deci and Ryan, 2000; Gagné and Deci, 2005; Pelletier et al., 2013). This study also expands the ideas of intrinsic and extrinsic motivation. According to Jung et al. (2010) and Mekler et al. (2013), gamification in non-game situations can promote desired behaviour. Academicians are the key sources of information for Reinforcement theory and demonstrates how elements such as management style and work environment can either increase or decrease a person's motivation and wellbeing while Khan theory suites the engagement level that relates much to this study. Reinforcement theory is perfectly aligned with the social movement toward individual empowerment in this regard, as it represents an evidence-based approach to motivation and engagement with the capacity to challenge previous transactional thinking about motivation in the PHEI. It can be criticised for not evaluating a fully gamified system, social media and for not investigating the long-term consequences of the game features deployed among academicians in PHEI. Therefore, the researcher will investigate the role of digitalisation in a fully-fledged gamified system and social media that would be challenging because the effect could be attributed to EE in PHEI. Both the theories are explained in a figure below in relation to the gaps.

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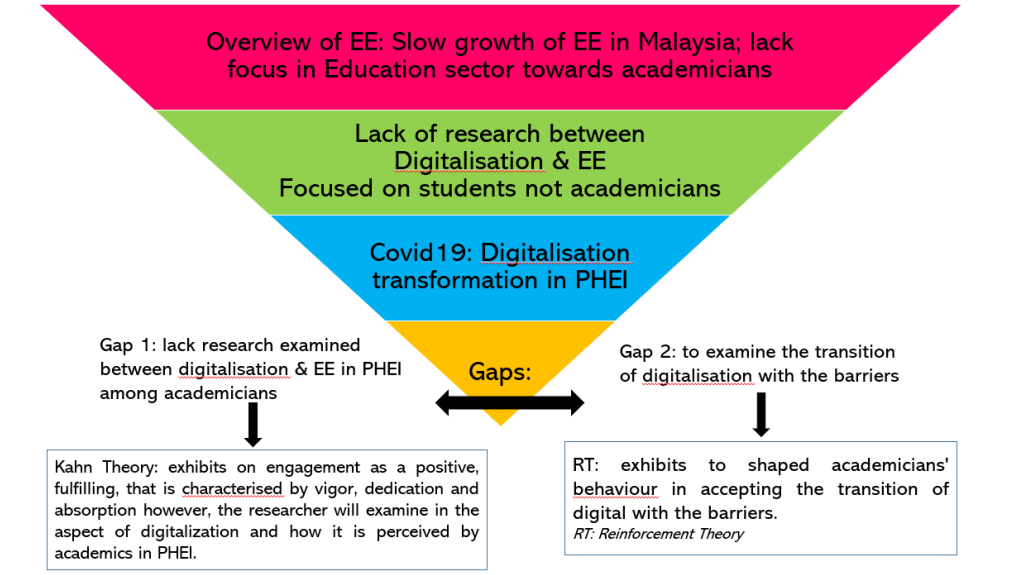

Figure 2: Engagement Theories And Gaps

The present researcher argues that, through the Kahn Theory and Reinforcement theory the researcher gaps of this research can be adopted accordingly that was previously explained in Figure 1. Khan theory will address the gap1 research that explained on lack of research in the aspect of digitalisation and EE, therefore, the researcher argues that with Khan theory, the element of psychological, vigour, dedication and absorption will influence the EE with the interference of digitalisation while Reinforcement theory will be adopted to support the gap 2 research where Reinforcement theory is focused to shaped the academics behaviour in order for them to accept digitalisation aspects to EE and also it is connected well with the intrinsic and extrinsic motivation involving games that can be related to digitalisation aspect of this research that has brought to a digital transformation. Therefore, with Reinforcement theory the transition of this digitalisation will be adopted and the impact on the digital culture among academicians in PHEI.

Relationship between Gamification and Employee Engagement

With the right gamification techniques in place, users are more likely to put in extra effort and play for longer periods of time while also giving more thought to the game's purpose (Gutt et al., 2020, Hollig et al., 2020). The use of gamification to encourage healthy competition amongst employees inside a company has shown to be an effective way to increase both productivity and employee enthusiasm. The beneficial results seen with gamification have proven this potential (Friedrich et al, 2020; Mitchell et al, 2020 and Oprescu et al., 2014). Studies have demonstrated that gamification may boost consumer loyalty and engagement, and the possibility that they would download applications, according to previous research that provided evidence for its utility in customer relationship management. This research also demonstrated that gamification increased the likelihood that customers would download applications. In particular, it has been demonstrated to be useful in customer loyalty programmes to use gaming elements (Hwang and Choi, 2020). According to some research (Müller-Stewens et al., 2017; Xi and Hamari, 2020), gamification has the potential to increase users' loyalty to a brand, their willingness to make a purchase, and the likelihood of recommending that brand to others. Additionally, gamification can promote product innovation

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adoption and customer referrals (Wolf et al., 2020). At the transformational level, it has been demonstrated that gamification is a very successful method for encouraging healthier lifestyles, more active lifestyles, and energy use that is more ecologically friendly (Sardi et al., 2017; Jang et al., 2018; Matallaoui et al., 2017); Mulcahy et al., 2020; Oppong-Tawiah et al., 2020). In a variety of different ways, participation and gamification have been linked to one another (Syrj ala et al., 2020). According to Subramony et al. (2017), gaming components tend to foster workplace enjoyment, which, in turn, results in job satisfaction and well-being for employees. They feel that these elements provide great potential for managerial initiatives to enhance pleasant work environments, joyful work experiences, and employee engagement since they appear to improve workplace satisfaction.

According to previous research for example, Poncin, Garnier, Mimoun, and Leclercq, 2017; Leclercq et al., 2020), gamification may have both short-term and long-term negative consequences on a team, which may lead to a decrease in individual and team engagement. This is because unhealthy competitiveness is likely to result from the use of gamification techniques. Another study supports these findings in a real-world setting by highlighting the detrimental consequences of gamification on employee engagement and productivity over the long run. The purpose of this study was to examine the impact of gamification on worker motivation and productivity. This research shows that, despite the growing popularity and broad use of gamification techniques, these strategies typically fail to reach their stated engagement goals, potentially putting workers and the workplace in jeopardy. This is despite the fact that gamification is getting more popular. Employees may get the impression that managers are using a "carrot and stick" technique to monitor their performance since the goals and incentives of gamified systems may be perceived as such. This interpretation is not impossible to achieve because of the characteristics of gamified systems. In many cases, the intrinsic motivation of workers suffers as a direct result of the aforementioned external rules (Friedrich et al., 2020; Mitchell et al., 2020). These findings, which are in line with those of previous research, lend credence to the idea that incentives and tracking of success might have negative effects in gamified settings. These findings lend credence to the hypothesis that gamified settings, which may include things like prizes and progress monitoring, do not produce any benefits that can be considered statistically significant (Eisingerich et al., 2019).

The results lend credence to the idea that gamifying work has unfavourable primary effects in a retail environment. The findings shed light on the critical role that contentment in one's work plays in mitigating the potentially detrimental impacts of gamification on worker engagement and production. In the end, it was made abundantly evident that the moderating effect of employees' desire to participate in activities of this kind on the negative link between gamified work and job satisfaction was demonstrated. The findings of this study collaborate with the previous studies by demonstrating the crucial importance of employees' connection quality. According to this viewpoint, strong working relationships among coworkers increase both job happiness and engagement. However, losing a contest is not the only factor contributing to the negative effects of gamification on engagement (Leclercq et al., 2018). Last but not least, the findings show on the correlation between employees' levels of engagement and gamification. Since participation in gamification decreases employee satisfaction and engagement, using it in the workplace could be counterproductive. However, this negative impact is mitigated when employees show enthusiasm for taking part, highlighting the need to think about consent for participation in gamified events, which has not been thoroughly studied thus far (Dale, 2014).

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According to Syrjalan et al (2020, p. 3) study on the topic of gamification, "participation is often treated as a given notion in gamification research." Marketing (Hollebeek, 2011), organisational behaviour (Bakker et al., 2008), education (Appleton et al., 2006), and human-computer interaction (Appleton et al., 2006; Fredricks et al., 2004), (Appleton et al., 2011; Hollebeek, 2011; Verhoef et al., 2010), such as (Bakker et al., 2004). According to Pansari and Kumar (2017), there is a vast amount of language that can be used to describe the plethora of different sorts of individuals and things that are taking part in activities. This terminology may be found in a wide variety of different contexts (e.g., customer engagement, brand engagement, student engagement, staff engagement, user engagement). In recent years, a large number of studies have been conducted to study the relationship between gamification and a wide variety of different types of engagement. These studies have been carried out all over the world. Recent research has focused mostly on the extent to which students participate in academic activities (see, for example, Bouchrika et al., (2019); Akroglu et al., (2017); da Rocha Seixas et al., (2016); Filsecker and Hickey, (2014); Goksün and Gürsoy, (2017); da Rocha Seixas et al., (2016). This is due to the fact that education being one of the most fruitful gamification research subjects currently available. On the other hand, research on gamification and participation in contexts other than schools is becoming an increasingly prominent topic (Ding et al., 2018); Eisingerich et al., (2019); Jang et al., (2018); Yang et al., (2017); brand engagement; staff engagement; user engagement; Syrjal an et al., (2020); Xi and Hamari, (2020); and Berger et al., (2018); Syrjal an et al., (2020); Wang et al (2017).

TOPIC & REFERENCE	IV	DV	RESEARCH DESIGN	KEY FINDINGS
Customer engagement Eisingerich et al. (2019)	Gamification principles (social interaction, sense of control, goals, progress tracking, rewards and prompts)	Purchases	Interviews and survey	Hope positively mediates the relationship between gamification principles and customer engagement. Compulsion reduces the possibility of customer engagement
Hammedi et al. (2017)	Gamification mechanics	Patient engagement (cognitive, emotional and behavioral)	Case study	Gamification mechanics foster four experiential outcomes in patients: challenge, entertainment, social dynamics, and escapism, which in turn stimulate patient engagement
Brand engagement Syrj¨ al¨ a et al. (2020)	Gamification	Consumer brand engagement and consumer benefits (functional, hedonic, social, and educational)	Interviews	Gamified packaging generates: functional, hedonic, social, and educational benefits for the consumer, which are linked to consumer brand engagement dimensions (cognitive, emotional, and behavioral)
Employee/job engagement Passalacqua et al. (2020)	Gamified interface and seat goals	Employee engagement (cognitive and emotional) and performance	Experiment	Gamification can be a suitable strategy for a lack of employee engagement
Hammedi et al. (2021)	Gamified work	Job performance	Interviews and experiment	Gamification has a negative impact on employee engagement and wellbeing. The willingness of employees to participate in the gamified work moderates the negative impact

Table 1: Experiments That Are Relevant To The Topic Of This Article And That Examine The Connection Between Gamification And Participation.

Source: Bouchrika et al., 2019; da Rocha Seixas et al., 2016; Filsecker and Hickey, 2014

Gamification has not been used to assess academic engagement, especially in PHEI, according to all of these studies. Therefore, the present researcher will explore gamification's role in EE in PHEI. Users have a huge variety of digital experiences (eHealth, eLearning, digital games, social media, online search). Therefore, acquiring knowledge on the experiences of individuals in a range of online environments is both vital and relevant (O'Brien and Cairns, 2016; O'Brien) (2018). Numerous academics, like Suh et al. (2018) and Wang et al. (2017), as well as others who deal with online platforms, have explored the association between gamification and

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engagement in the particular environments (see Table 1). Because digital technology can manifest itself in such a dizzying array of guises (including mobile applications, social networking websites, and online search engines), gamification and user engagement have both been the subject of research in an extremely diverse set of settings (e.g., Kuo and Chuang, 2016; Liu et al., 2020). Recent studies have inquired into whether or not the incorporation of gamification into mobile applications may make the experience of using those programmes more enjoyable for the end user (e.g., Cechetti et al., 2019; Featherstone and Habgood, 2019; Feng et al., 2020). Research was carried out by Cechetti et al. (2019) and Feng et al. (2020), respectively, to evaluate the effect that gamification has on the amount of engagement a user has with mobile health and fitness applications. Computers in Human Behavior is the publication that hosted both of these investigations when they were completed. The results of this study indicate that gamification, in general, results in better levels of user engagement. The researcher will do more study on the link between gamification and employee engagement (EE) among academicians at PHEI given that PHEI has not carried out an analysis of the degree of engagement among its workers. As a direct result of this, it is very necessary to do research on the function of gamification as well as its influence on digital culture and the engagement of workers. As a result, the first hypothesis developed for this research:
H1: Gamification has a positive relationship with employee engagement among academics in the PHEI, Klang Valley, Selangor.

Research Methodology

A quantitative (Quan) research is adopted to develop insights about the digital culture in this research that compromises the age and gender findings available through collecting data through survey (Creswell and Plano Clark, 2009). Using a comprehensive acculturation strategy within a quantitative assessment framework, the current researcher will disseminate 375 questionnaires to respondents that will allow the current researcher to learn why and how academics are using digitally in PHEIs across age and gender categories. By delivering this method, the RQ shall be addressed respectively. The result is a complete picture of what is going on in practices with wide aims, and it is typically used as a starting point for generating or choosing surveys for a larger quantitative analysis.

Research Design

According to Zikmund et al. (2010), research design is a master plan that describes the methodologies and procedures for acquiring and analysing the needed information. This definition of research design can be found in the original article. In general, it provides the most effective technique to gather and view important information for the study in the context of the research design (Sekaran and Bougie, 2013). Because of the way the research was designed, a comprehensive comprehension of the link that exists between the many aspects of the independent variables and EE in PHEIs has been supplied as a consequence. In addition, the research design may be broken down into two different types of research methodologies, which are qualitative research and quantitative research (McLeod, 2019). Nevertheless, the quantitative approach will be utilised for this study.

Quantitative research is an empirical investigation that is universally recognized for its ability to quantify issues through the generation of numerical data or data that can be converted into actionable insights. The objective of this sort of study is to quantify challenges using the method of generating numerical data. It is used to analyse behaviours, views, ideas, opinions, and other specified elements in order to create the findings from a larger example population.

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Specifically, it is applied to produce results from a sample population. For the purpose of defining facts, data, and raw samples in research, quantitative research makes use of data that can be quantified. The procedure for collecting quantitative data is significantly more structured than the process for collecting qualitative data. There are several survey forms, online surveys, questionnaires, mobile surveys, in-person interviews, telephone interviews, longitudinal studies, online polls, and planned and purposeful observations used to collect quantitative data.

Population

A research project largely depends on both its population and its sample in order to be successful. The term "target population" refers to the entire group of individuals who are of interest to the researcher for the purposes of carrying out the inquiry that the study intends to accomplish. In order for this research to be carried out, the researcher will need to choose an acceptable sample location as well as sampling items (Kenton, 2020). One may say that a population is an assortment of a perspective of subjects that have been grouped together because they have a similar quality. As a result of the fact that the purpose of this research is to digital revolution and digital culture towards employee engagement in PHEI, the demographic that this study will concentrate on is academics living in the Klang Valley, which is located in the state of Selangor in Malaysia. In order to collect relevant data and fulfil the underlying purpose of this study, the researchers behind this study sought out academics working at institutions in the Klang Valley.

Sample

Since the population of academics is known, Krejie and Morgan's (1970) rule of thumb will make it easier for the present researcher to establish the sample size for this study. The sampling process is efficient in terms of time, money, and human resources (Sekaran and Bougie, 2016). A process that is employed in factual research, sampling, may be defined as the taking of a certain number of examples from a larger population. This is done in order to get a representative sample of the population (Krejie and Morgan's, 1970). Both probability sampling and non-probability sampling are two distinct types of sampling that may be distinguished from one another. Non-probability sampling entails non-random selection based on convenience or other criteria that makes it simple for researchers to gather data from the beginning, whereas probability sampling entails selection at random, which allows researchers to draw measurable conclusions about the group as a whole and about specific group members (McCombes, 2019). For the purposes of this study, the convenience sampling method will be utilised, and the Klang Valley will serve as the location for the sample collection that will be chosen to best represent the PHEIs' target demographic. This study will utilise convenience sampling, which is an innovative approach to the recruitment of study participants. The use of convenience sampling is a proven and effective technique for recruiting research participants who are difficult to reach or who are not previously known to the researcher (Marcus et al., 2017; Naderifar, Goli, and Ghaljaie, 2017; Reagan et al., 2019).

Through the use of the adapted questionnaires, the quantitative research technique will be used for this particular investigation so that the research objectives could be described, tested, and investigated. Because it places an emphasis on descriptive expressions like visual textual and narrative analysis, the qualitative research approach is not going to be suitable for this investigation. In order to get the necessary information for this study, the researcher will obtain a sizable cross-section of respondents. As a consequence of this, utilising this study approach

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will make it much simpler to arrive at a definitive and all-encompassing conclusion. This quantitative research approach is appropriate for this study because it is a straightforward process to carry out and will be of tremendous benefit when attempting to investigate a particular hypothesis among a very large population demographic. This approach to research is appropriate for this study because it is simple to carry out. This indicates that the researcher is able to determine whether or not individuals conform to the demographic profile of their study group without requesting any personally identifying information from those individuals.

The scales include values 1 through 5 as its range from "Strongly Disagree" is represented as 1, "Disagree" represented as 2, "Neutral" represented as 3, "Agree" represented as 4, and "Strongly Agree" represented as 5. The researcher will also be able to evaluate the respondents' level of perception using the interval scale. For Sections B, C, and D, closed-ended questions will be utilised since they don't require a lengthy response period, let respondents fill in the details quickly, and make it easier to get data from big samples. No concepts or justifications for respondents' viewpoints are required. Additionally, this makes it easier for the researcher to evaluate and analyse the responses.

Code	Item	Number of Questions	Type of Scale
IV 1	Gamification	5	Interval

Table 2: Types Of Scales Used In Questionnaire In Section B And C In Section D

Item	Description	Number of Questions	Type of Scale
DV1	Employee Engagement	9	Interval

Table 3: Types Of Scales Used In Questionnaire

Gamification

As discussed, the questionnaires will be taken from a previous reviewed literature and used in this one. The descriptions of each inquiry, which will contain both the independent and the dependent variables, will be presented in the table that follows. In this research, gamification will be presented as GAM.

Section B: Independent Variables

B1: Gamification

Code	Items	Source(s)
GAM1	I believe that using gamification will have a high positive effect on employee's engagement towards my job and with my colleague(s).	Adapted and modified from Lawanda et al (2018).
GAM2	Points, badges, rewards, avatars, and leader boards are all key elements of feedback that encourage academicians' participation and their level of engagement.	Adapted and modified from Greatorex, and Dexter, (2000).

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GAM3	In my opinion, gamification is usually interesting, and I get connected with my colleague(s).	Adapted and modified from Angeles, 2007; Juban and Wyld, 2004; Levesque and Boeck, 2017).
GAM4	I like to try out new ways (eg: gamification) to engage with my colleague(s).	Adapted and modified from Hirschman,1980; Venkatraman and Price, 1990; Wood and Swait, 2002).
GAM5	Gamification motivates and gives me energy because my peers are engaging with me.	Adapted and modified from Hamari, Hassan and Dias (2018)

Table 4: Questions And Sources For Gamification

Employee Engagement

Section C: Dependent Variable

C1: Employee Engagement

The researcher discovered six major scales of participation in previous investigations, which are given in Table 5. These scales can all be used for measurement. The Utrecht Work Engagement Scale (UWES) is the first and most used measurement yardstick (Kulikowski, 2017). The UWES was developed by Schaufeli and Bakker in 2003 to evaluate one's vigour, commitment, and concentration during work. The UWES-17, a 17-item survey, serves as the basis for this model (Schaufeli and Bakker, 2003). Nine statements make up UWES-9, the replacement and condensed version of UWES-17, which measures work activity (Schaufeli et al., 2006; Shuck et al., 2016).

NO	ALTERNATIVES	ENGAGEMENT SCALE
1	Schaufeli & Bakker (2003) (UWES)	Work Engagement (vigor, dedication and absorption)
2	May et al (2004)	Physical engagement Emotional engagement Cognitive engagement
3	Saks (2006) (OES)	Organisational engagement
4	Rich et al (2010) (JES)	Job engagement
5	Soane et al (2012) (ISA)	Intellectual engagement Social engagement Affective engagement
6	Shuck et al (2014) (EES)	Cognitive engagement Emotional engagement Behavioral engagement

Table 5: Measurement used for Employee Engagement

As a result, many aspects of EE, such as vigour, devotion, absorption, physical, emotional, cognitive, intellectual, social, and affective involvement, can be measured using the numerous alternative scales. In this research, the researcher will adopt the UWES scale to measure the EE level among the academicians.

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The academicians' engagement in this research was measured using the short form of the UWES 9 scale developed by Schaufeli et al (Scaufeli et al, 2002), modified by adding the element of digitalisation in the questions where the researcher can evaluate better on the engagement level with the academicians in PHEI with digitalisation. Since EE is influenced by the three elements of vigour, dedication, and absorption, therefore, the scale to measure consists of nine items of UWES pointing to measure the EE as below where it is classified as EE1 to EE 3 are the vigour element, EE4 to EE6 are the dedication element and EE7 to EE9 are the absorption element of this research:

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Code	Items	Source(s)
EE1	At work, when I am use digital platform (eg: gamification or social media) to communicate with my colleague(s), I feel bursting with energy.	Adapted from Schaufeli and Baker (2003).
EE2	At work, applying the digital aspects (eg: gamification or social media), I feel strong and vigourous being with my colleague(s).	Adapted Schaufeli et al, (2002)
EE3	When I get up in the morning, I feel like going to work.	Adapted Schaufeli et al, (2002)
EE4	I am enthusiastic working with my colleague(s)	Adapted and modified from Schaufeli and Baker (2003)
EE5	I am inspired working with my colleague(s) involving digital.	Adapted and modified from Nöhammer, and Stichlberger (2019).
EE6	I tend to be more engaged with a satisfying reward, gift from badges, leader boards, points, scoring, is a better impact to my work and colleague(s).	Adapted and modified from Cardador et al, 2017; Suh et al., (2017).
EE7	I feel happy when I am working intensely with digital aspects (gamification or social media) involving my colleague(s).	Adapted and modified from Cooke et al, (2016)
EE8	While I am working and preparing to learn digital elements (gamification or social media), I get carried away even when things do not go well.	Adapted and modified from Gruman, and Saks (2011)
EE9	One of the goals of my organisation is moving forward to digital aspects (gamification or social media) which makes me feel that my interaction with my colleague(s) is important.	Adapted and modified from Utrecht Work Engagement Survey (2006)

Table 6: Questions And Sources For Employee Engagement

Pilot Test Research Design

This brings a highlight to the researcher where the researcher will distribute to 40 academicians in PHEI to test on the pilot test as proven many researchers has used 40 samples for the pilot test. The questionnaire adapted as well that the questions in the questionnaire are simple, straightforward, and not complex that will not require a larger sample size for pilot test.

After collecting the respondents' replies, they will be put into the Statistical Package for the Social Sciences (SPSS). The research will utilise SPSS version 22 to analyse the data. Cronbach's Coefficient Alpha is utilised in reliability analysis to assess the internal consistency of variables. Cronbach Alpha must be more than 0.70 to ensure dependability, suggesting enough internal consistency (Zikmund, et al, 2010). As shown in Table 7 below, the strength level is based on the alpha value.

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Cronbach's Alpha Coefficient ranges	Reliability Level
0.80 and 0.95	Very good reliability
0.70 and 0.80	Good reliability
0.60 and 0.70	Acceptable reliability
Less than 0.6	**Poor reliability**

Table 7: The Rule of Thumb of Cronbach's Coefficient Alpha

Source: Zikmund, et al, (2010)

Table 7 further explains on Cronbach's alpha spans from 0 to 0.95, indicates higher values signify the stronger reliability. The acceptable Cronbach's alpha coefficient threshold is contested in the literature, however, to be conservative, any alpha value less than 0.60 is grounds for caution. If possible, utilise the standardised alpha coefficient to calculate reliability, which is an even more cautious method.

Pilot Test Factor Analysis

Prior to writing the full report, a pilot test advisable to be conducted to assess the questionnaire's internal accuracy and dependability. It depends on how well respondents comprehend the questions, how consistent their answers are, and how well the questionnaire questions match the study's aim. A pilot test also ensures that the questions are clear and calculates the average time it takes respondents to complete the questionnaire (Sekaran, 2016). The pilot test will reveal questionnaire flaws and biases to the researcher. The pilot test also helps the researcher assess questionnaire accuracy, reliability, and validity before the major survey. Table 8 reliability rule of thumb explains this, where results will be shown in the next chapter.

For this research, the concepts of validity will be employed to assess the research quality. The validity of an instrument can be defined as how well the questionnaires were measured (Hair et al, 2018). There are four types of validity which are the face validity, content validity, criterion validity and construct validity. For this research, the researcher will adopt the criterion validity. This is because however the researcher will adopt the criterion-related validity to test between the criteria with the correlations (Mohajan, 2017). This validity will be measure through the formula as illustrated below in Table 8 and mapped the findings with the obtained value and critical value in later studies. The rule of thumb is the obtained value must be greater than the value seen in the table that explains the validity of the questionnaire of this research.

DF= N-2	*N= Sample Size*	*DF= the degree value*
	Obtained value > critical value in the table	

Table 8: Formula For Validity

Source: Hair et al, (2018)

Data Analysis

Descriptive and SEM analyses of survey data will be adopted PLS-Graph 3.0. The researcher will use convenience sampling, which is a non-probability sample technique, for this study. The primary rationale for utilising convenience sampling for this study is because the researcher had difficulty in obtaining information from selected PHEI therefore the researcher chooses to distribute the questionnaires to academicians attached to PHEI in Klang Valley, Selangor. Specifically, the information is gleaned from people who live near one another. It's

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possible that this is one of the most convenient ways to get information quickly and in a short amount of time. This is because it mixes convenience with speed.

Conclusion

In conclusion, this study provides directions for further research on the analysis of the results and further investigation of the related consequences and usages. Future research will endeavor to examine RO, RQ and Hypotheses and the applicability of these interpretations and seek to expound the knowledge and discussion regarding the subject matter in practice as well as in the policy framework. Gamification presents a valuable chance to establish a captivating and gratifying work environment by addressing the impact of digitization on employee engagement. Faculty members at Private Higher Education Institutions (PHEIs) in the Klang Valley, Selangor are particularly affected by this. The research findings indicate that gamification offers a comprehensive approach to enhancing employee engagement, involvement, and cooperation in the digital world. While there are numerous benefits, it is crucial to acknowledge the difficulties associated with implementing gamification strategies in educational settings. In order to ensure long-term efficacy, gamified projects must be adeptly managed to overcome challenges such as resistance to change, technological constraints, and the ongoing need for adaptation and innovation.

Furthermore, further study is required to examine the enduring impacts, adaptability across various institutional contexts, and the convergence of variables that influence the efficacy of gamification in addressing employee engagement in higher education institutions (PHEIs). The study has provided significant insights regarding the possibility of gamification. PHEIs in the Klang Valley, Selangor have the potential to mitigate the impact of digitization on staff engagement through the implementation of gamification strategies. This will enable organizations to cultivate a workforce that possesses enhanced capabilities to effectively respond to the dynamic landscape of higher education, while fostering an environment that promotes creativity, cooperation, and ongoing learning.

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