FACTORS AFFECTING WORKFORCE AGILITY AMONG GOVERNMENT-AIDED SECONDARY SCHOOL TEACHERS

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FACTORS AFFECTING WORKFORCE AGILITY AMONG GOVERNMENT-AIDED SECONDARY SCHOOL TEACHERS

by

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LIST OF ABBREVIATIONS

CET	Cognitive Evaluation Theory
DDDM	Data Driven Decision Making
DLGF	Digital Literacy Global Framework
EE	Employee Empowerment
EQF	European Qualification Framework
ICT	Information and Communication Technology
IM	Instant Messaging
IT	Information Technology
KS	Knowledge Sharing
MCMC	Malaysia Communications and Multimedia Commission
MEB	Malaysian Education Blueprint
MOOC	Massive Open Online Course
OECD	Organisation for Economic Co-operation and Development
OIT	Organismic Integration Theory
PLS	Partial Least Square
SDT	Self-Determination Theory
SEM	Structural Equation Modelling
SMU	Social media usage
SPSS	Statistical Package for the Social Sciences
SSQS	Smart School Qualification Standards
TALIS	Teaching and Learning International Survey
TAM	Theory of Acceptance Models
TPACK	Technological pedagogical content knowledge
TPB	Theory of Planned Behaviour
UGC	User-generated content
UN SDG	United Nations' Sustainable Development Goals
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WA	Workforce Agility

LIST OF APPENDICES

FAKTOR-FAKTOR YANG MEMPENGARUHI KETANGKASAN KERJA DALAM KALANGAN GURU-GURU SEKOLAH MENENGAH BANTUAN KERAJAAN

ABSTRAK

Melonjak ke fasa transformasi yang ketiga dalam Pelan Pembangunan Pendidikan Malaysia 2013-2025, fleksibiliti dikenalpasti sebagai salah satu ciri yang menyumbang kepada kecemerlangan dalam sistem pendidikan Malaysia. Kekangan kajian dalam aspek ketangkasan kerja merupakan aspirasi untuk menjalankan kajian kuantitatif ini daripada perspektif Teori Keazaman Kendiri. Tambahan, pembolehubah seperti kompetensi digital, pemerkasaan pekerja, dan perkongisan pengetahuan dikaji untuk melihat pengaruhnya terhadap ketangkasan kerja dalam kalangan guru-guru. Selain itu, untuk menjadikan kajian ini unik, penggunaan media sosial turut diuji untuk melihat kesan penyederhanaannya terhadap semua hipotesis. Data yang dikutip daripada 217 guru-guru daerah Larut Matang dan Selama, Perak melalui kajian soal selidik menunjukkan model kajian ini menerangkan konsep ketangkasan kerja sebanyak 59.1 peratus. Analisis melalui PLS-SEM dengan kaedah cantuman 2-tahap menunjukkan kompetensi digital, pemerkasaan pekerja, dan perkongisan pengetahuan, mempengaruhi ketangkasan kerja, namun semua hipotesis kesan penyederhanaan adalah tidak disokong. Sebaliknya, penggunaan media sosial didapati mempengaruhi ketangkasan kerja secara langsung. Namun begitu, jumlah respons dalam kajian ini tidak cukup untuk mencerminkan keperibadian guru di dalam negara ini. Tambahan pula, kebergantungan kepada sumber tunggal menjadikan perspektif oleh ketua-ketua jabatan dan pemimpin peringkat pertengahan sekolah tidak dapat diketahui. Oleh itu, disertasi ini mencadangkan agar aspek-aspek lain seperti jurang generasi dan

perbandingan dengan kumpulan lain untuk diambil kira, Tuntasnya, kajian ini telah mengkaji konsep ketangkasan kerja di luar masa instruksional dalam kalangan guru-guru dan juga telah mendirikan asas-asas untuk mempertimbangkan DigComp 2.1 sebagai kerangka kompetensi digital kebangsaan.

FACTORS AFFECTING WORKFORCE AGILITY AMONG GOVERNMENT-AIDED SECONDARY SCHOOL TEACHERS

ABSTRACT

On the verge of leaping into the 3rd transformation wave of the Malaysian Education Blueprint (MEB) 2013-2025, flexibility is found to be one of the key features to achieve excellence in Malaysian education system. With the scarcity of literature on workforce agility, this quantitative study aspired to explore this concept among normal academic teachers in government-aided secondary schools from the viewpoint of Self Determination Theory. Further, other variables such as digital competency, employee empowerment, and knowledge sharing, were also studied in the attempt to find their significance in influencing workforce agility of the teachers. To add novelty into this research, social media usage was also tested for its moderating effect on the hypothesized interactions. Data collected from the respondents was derived from 217 teachers in the Larut Matang and Selama district in Perak through questionnaires distributed. The research model explained 59.1 percent of workforce agility. From the analysis through the disjoint 2-stage approach with PLS-SEM, the exogenous variables such as digital competency, employee empowerment, and knowledge sharing, were found to be influencing the endogenous construct, while all hypothesized moderated relationships were not supported in this study. Interestingly, it is also revealed that social media usage, instead, has a direct influence onto workforce agility. The limited responses, yet derived only from a district, is not suffice to reflect the characteristics of the teachers throughout the country. Being a single-sourced data, thus, the perspective from the school leaders and middle managers on workforce agility remains unknown. This dissertation has also proposed to venture into

aspects such as generation gaps and comparison with other groups. In summary, this study has explored on the concept workforce agility among teachers beyond classroom instructional practice, and has also established the basis to consider DigComp 2.1 as the national digital competency framework.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter highlights the background of this study, comprising of what leads to this research; including research questions which are derived from the research objectives based on the research problems, scope of the study, the significance of this study and concluded with the layout of the following chapters.

1.2 Background of the Study

The teacher's presence among the society has always been regarded as of the most respectable community members. There has also been continuous urge to call on teachers to upgrade their skills and knowledge; to improve students' performance in particular (Trust, 2017). Being the souls of any educational institution, teachers would have to upgrade themselves with new knowledge in relation to their core competencies from time to time. To benefit from what the best available technology can offer and putting in the intelligence from the educators, there must be a transformation to happen within the educator's way of thinking (Howard, 2018). The idea of a nation being able to progress well will not be feasible; if not for the teachers who are well-equipped, competent, and agile.

There is also a dire need to push these educational professionals in their organizations to develop and to be on track and in line with the educational policies and vision and mission of their strategic planning. Moving towards 2030, countries all over the world must work collectively to make the proposed blueprint in the United Nations a reality; the United Nations' Sustainable Development Goals (UN SDG), with the aim to transform the world into a better place to live. One of the 17 goals is

to address quality education for all by promoting learning as a lifelong process and to ensure equitable yet inclusive quality education, as per stated in UN SDG 4. Therefore, to embrace the changes and needs in pursuing UN SDG 4, there is much to be done by educational institutions since the quality of education, learning environment and also the capacities of teachers have not been up to pace (United Nations, 2019).

Organizations too must also be able to strategize in order to keep pace with the changes happening. It was also highlighted by a few researchers that the ability to strategize could turn certain changes that deemed to be negative into opportunities for the organization (Mohammad et al., 2020). The birth of Malaysian Education Blueprint (MEB) in 2013 is a strategy, which aims in transforming the education system in Malaysia; to put young Malaysians in the international arena and to prepare them for the demanding and challenging world in the 21st century. As shown in Figure 1.1, the MEB outlines the transformation the Malaysian education system over the span of 13 years in three waves (Ministry of Education Malaysia, 2013b). Moving forward towards 2021, through MEB, the Ministry aims to achieve the vision of Wave 3 (Figure 1.1) by enabling its departments, sectors, and divisions to have greater flexibility in their operations for excellence.

Figure 1.1 Malaysia education transformation (Ministry of Education Malaysia, 2013b, p. E-25)

Based on Figure 1.1, there are several aspects pertaining to information and communication technology (ICT) to be focused in Wave 2 and Wave 3. The ministry puts emphasis on innovations to improve the education system with ICT by reaching out to specific groups in promoting higher standards of learning nationwide. Hence, digital competency and ICT literacy are crucial in making these visions a reality. The study on the level of digital competency will be able to reveal the gap existed between the intent and practice among teachers so that interventions can be taken at the root cause level in order to promote innovation.

To further enhance the system, the Ministry also aims to restructure the institutions for better effectiveness and delivery. In Wave 2 of MEB, as illustrated in Figure 1.1, roles of different divisions will be strengthened while redundant roles and responsibilities to be streamlined and consolidated so that each and every sector will act more efficiently by year 2020. Moving forward into the third wave, there will be a review upon school structure for optimisation from 2021 onwards. From the surface,

the document has shown to be given more emphasis to empower officials and officers beyond schools.

Embracing these abrupt changes and transformation is no easy feat, especially when there are individuals or organizations work in silos, for it is known to impact negatively on the performance of an organization (de Waal et al., 2019). Also, the rigidity of an organization should also be overcome as there have been organizations which had been successful, failed because they had not been able to act against external threats and opportunities (Amiripour et al., 2017). Therefore, to address all the uncertainties faced due to the dynamic, unpredictable and constantly-changing environment, an 'agile organization' is the key (Muduli & Pandya, 2018). According to Zhang and Sharifi (1999), there are several features an organization must possess in order to be agile. The several features are known as agility capabilities; competency, responsiveness, flexibility, and speed (Figure 1.2).

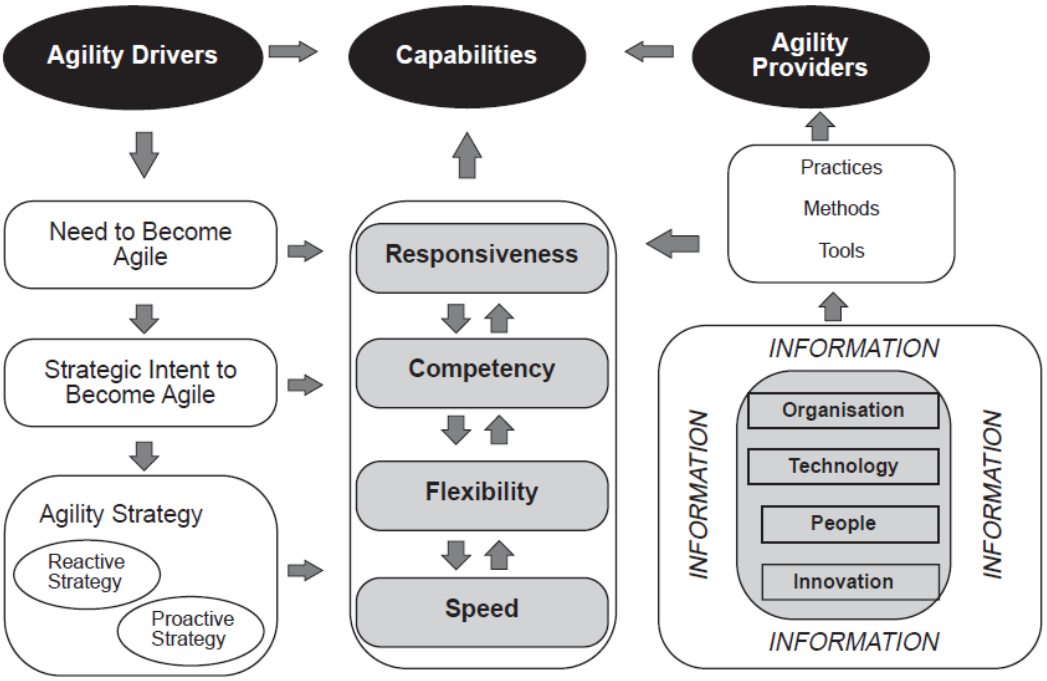

Figure 1.2 Conceptual model to implement agility (Zhang & Sharifi, 2000)

With the disruptive nature of the digitalization era, organizations and institutions are forced to move out of their comfort zones to be able to stay competitive constantly, as they need to sense and react to new threats and opportunities. These opportunities and threats are often enabled and associated with information technology (Leonhardt et al., 2016). Therefore, to unlock the full potential of what information technology can offer, agility is deemed to be the key, being responsive, competence, flexible, and quick in adapting and adopting to the changing environment.

In this technology-driven world, every organization must keep abreast and constantly adapting to the development and changes in technology as ICT has evolved by leaps and bounds in a decade. A fairly good example would be the mobile technologies, which have undergone a tremendous development in the span 13 years. When the third generation (3G) was introduced in 2002, it was only capable of transmitting a data rate of 2Mbps. Eight years later, in 2010, the fourth generation (4G) could perform up to 500 times faster than its predecessor. At the time the fifth generation (5G) was discussed in 2015, it said to have the capability to support 1000 folds and more of what 4G infrastructure can accommodate today, to support the connectivity of more than 50 billion devices (Ezhilarasan & Dinakaran, 2017).

The transformation of education too has not been able to escape from the evolution of technology. Practices from the past have been further strengthened with the usage of technology to make learning more inclusive and effective as proven by many researchers (Henriksen et al., 2016; Raja & Nagasubramani, 2018; Tondeur et al., 2017). However, it is also highlighted by researchers that despite what the ubiquitous technology could best offer in education sector and educational institutions,

a few concerns arose pertaining to human resource or the employees themselves are the lacking of expertise and support (Raja & Nagasubramani, 2018).

To recognise teacher's workforce in enabling schools to be more effective and efficient, teachers must be empowered by administrators and also mid-managers of the school. In the early document released by the Ministry of Education (2016), graduate teachers in government-aided schools of Malaysia will begin their career path with the substantive grade (gred hakiki) of DG 41 up to premier grade (JUSA) C. Based on the document, a normal academic teacher of DG 41 will only have the ability as an executioner, hence only able to facilitate, assist and to record data (Figure 1.3). Therefore, it is crucial to empower teachers of lower grade to have authority and trust in performing their jobs.

Looking into promoting innovation and optimising school structure, the aspect of employee empowerment is worth taking into account in this study. Empowerment encourages teachers to be motivated and at the same time, to be innovative (Ekobelawati; Fransiska, Setyadi; Djoko, 2019; Trust, 2017). Sejfijaj et al. (2019) claimed that empowerment encourages and enables employee to have flexibility in order to exchange and acquire new knowledge, which will expectedly benefit the organization in return. Empowerment also allows employees to tap into unexploited ability, given the flexibility, liberty, and autonomy (Naseri et al., 2016). Hence, the lack of employee empowerment could be a deterrent factor to innovate.

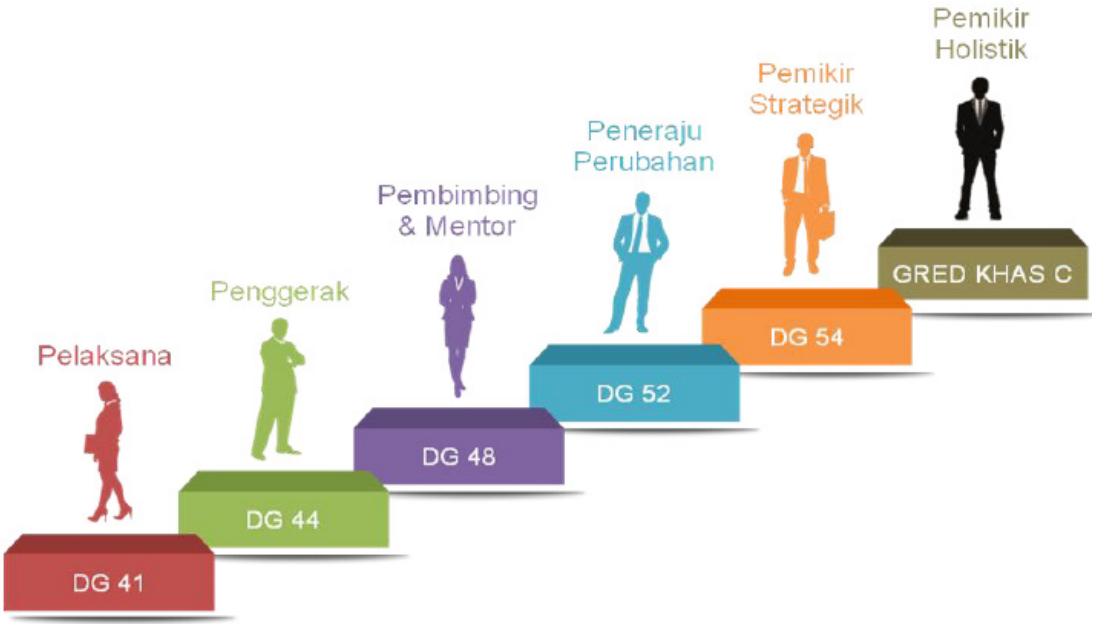

Figure 1.3 Education service officer's role according to grade (Bahagian Pendidikan Guru, 2016, p. 8)

However, being empowered is not sufficient if one does not acquire the skill. Defining empowerment, Ekobelawati et al. (2019) highlighted that it can only boost one's confidence, provided that he or she is equipped with proper skill or ability. In this 21st century, it is also almost inevitable for teachers and educators of this era to be bounded only to classroom teaching and learning activities. The Teaching and Leaning International Survey (TALIS) 2013 country report showed that teachers in Malaysia have been putting 11.5 percent of their classroom time in doing administrative tasks, relatively high in comparison to the international average of 8 percent as stated in Figure 1.4 (OECD, 2014). Responsibilities of a teacher vary from country-to-country, and in this case, the setting is in Malaysia. As stated above, teachers in Malaysia work beyond than just classroom teaching; which translates to clerical tasks involving documentation and other managerial tasks.

Having not being able to deliver in time may indicate employees facing difficulty to complete their job, in which will lead to burnout, increasing workload and

also inefficiency (Lilly et al., 2019). In this context, workload can be defined as the responsibilities formally assigned to a teacher by the school; both non-academic and academic (Sharifah et al., 2014). Hence, it is important to focus on digital competency as it delivers efficiency as proven by Junk et al. (2020).

Indicator		Malaysia	TALIS average
TEACHERS' BELIEFS AND PRACTICES			
Class-time time spent on administrative tasks such as marking attendance (percentage)	(2013) Download Indicator	11.5	8.0

Figure 1.4 Time spent on administrative tasks (OECD, 2014)

Citing from the Ministry of Education website (https://www.moe.gov.my/e-perkhidmatan), there is an extensive list of URLs on the e-applications on the website, which aim to reduce paperwork and for better efficiency. One of the nine initiatives carried out to address this matter is to fully utilised the online system of students' attendance record, replacing the conventional handwritten recording in register (BPPDP KPM, 2019). With the schools and the system have evolved over time, data can be collected systematically with the use of information technology (IT). In addition, a study which was conducted among 256 secondary school teachers in Klang, Malaysia, Othman and Sivasubramaniam (2019) highlighted that more than a third of the respondents (41.9%) felt that the amount of time spent on clerical tasks is equivalent to their time used for teaching. Based on the scenario mentioned above, it is crucial for teachers to be digitally competent to deliver results and produce outputs in a timely manner.

Theoretically, the time spent on administrative work could be addressed with the model proposed in this study as teachers can be more agile in undertaking these tasks, hence efficiency and time-saving. Other concerning matters could be related to

the users of technologies are the lacking of knowledge and confidence, the willingness in adopting technology, the increasing complexity of technology and also the lacking of proper guidance and instructions in usage (Carver & Todd, 2016; Siefert et al., 2019; Vaportzis et al., 2017). With proper approach to overcome these matters, one can be agile by possessing the qualities of being responsive, flexible, quick, and competent. To further strengthen teachers' professionalism and workforce, the Ministry aims to enhance coaching and support in all aspects; both in academic and non-academic aspects in Wave 2 by year 2020. As a progression, the culture of peer-to-peer learning among professionals to promote excellence will also be cultivated. These two initiatives share a common aspect, which is knowledge sharing. It is a dimension in knowledge management that impacts on the performance and also the agility of the organization (López-Nicolás & Meroño-Cerdán, 2011; Salehzadeh et al., 2017; Sambamurthy et al., 2003). The utilization of social media is also believed to promote agility among employees through the exchanging of knowledge and collaboration (Bala et al., 2019).

Today, the use of social media is almost inevitable. The debate on social media usage has never come to an end, for its pros and cons can barely outweigh each other; hence the difficulty to provide a clear-cut distinction between the two. However, Greenhow and Lewin (2016) claimed that this digital culture has the potential to enable humans to learn; be it informal or formal byencouraging knowledge sharing. It also enables one to multitask and is notably seen to make employees agile; resulting the enhancement of the organization's performance (Lau, 2017; Siddiqui & Singh, 2016). Bala et al. (2019) also highlighted that proper social media usage can further enhance agility in work and communication at individual level; to be able to understand the needs among colleagues or relevant parties better. Social media usage has also been

seen as a pertinent factor in boosting flexibility and speed that could promote agility, as the capability of adopting social media itself proves flexibility while social media as a tool, able to "collect and process an enormous and various amount of information and dynamically supports identification and anticipation of every change occurring to external environment" (Kosasi et al., 2017).

Subsequently, for an organization to be agile, it is in the dire need of having an agile workforce (Breu et al., 2002; Sherehiy & Karwowski, 2014). However, there have been many studies about teaching; mainly on pedagogy, continuous professional development, quality, assessment, technology competency in classroom, and more but as of the time of writing, the researcher of this study finds the lack of literature pertaining to workforce agility. The subject on being agile among teachers, especially out-of-classroom context has very limited literature. Paul et. al (2020) have also highlighted that workforce agility has not gained much attention from researchers, with pertinence to educational institutions. Bala et al. (2019) claimed there was scarce attention given to studying an individual's agility.

Therefore, the scenarios mentioned above beg the question, can teachers be agile beyond classroom practice, should they be empowered by the school administrators, digitally competent, and also proficient in knowledge sharing in achieving the vision in the third wave of the MEB? Thus, this study explores on the linkages between employee empowerment, DigComp 2.1 digital competency framework, knowledge sharing attitude and workforce agility of secondary school teachers in Malaysia, moderated by the use of social media.

1.3 Research Problem

1.3.1 Lack of Literature on Workforce Agility among Secondary School Teachers in Malaysia

An agile workforce is perceived as a workforce featuring buoyant, adaptable, flexible, audacious and malleable employees, in which sees life from a positive perspective, with open-mindedness in gathering knowledge for self-development and acquiring better skills in analysing while being able to adapt continuously with the varying working environment from time to time (Paul et al., 2020). This portrays the employees to be people of creativity, open-minded, acceptive of new ideas and technologies, and courageous enough to take up new responsibilities or challenges. However, all these features must not come at the expense of stress and emotional breakdown.

While burnout and stress have been concerns and subject matter of many studies, very few of these empirical researches delved into the reasons of such arising yet worrisome condition. No doubt these empirical studies have shown comparisons and levels of emotional exhaustion, depression, anxiety, depersonalization, reduction in personal accomplishment, stress, and also job satisfaction, but they do not reveal the reason or cause of such phenomenon (Jamaludin & You, 2019; Othman & Sivasivasubramaniam, 2019; Ooi & Abdul Ghani Kanesan, 2016; Subon & Sigie, 2016). Despite knowing satisfaction is earned deep in the hearts and souls of teachers through the achievement and performance of students and in classroom, findings in previous researches concluded that teachers faced burnout and stress due to their job. Jamaluddin and You (2019) highlighted teachers; especially the ones who have been

serving for at least 20 years, are burdened with additional stress due to the administrative and management tasks assigned with the use of ICT.

Reportedly, Kavita and Norliza (2018) have also noted that teachers of secondary schools are facing more stress than primary school teachers, mainly due to workload and surprisingly, school rules too. This will eventually hamper agility, as the elements of being quick, adaptive, flexible, and responsive could be interrupted. A strict and yet uncompromised set of rules may hinder teachers from being flexible, in control, and possibly agile in response too. In elevating the standard of education in Malaysia, teachers in government-aided schools are assuming roles beyond teaching in classroom, such as being put in-charged of activities and also tasks pertaining to administration and management, besides constant inspection from school inspectorates and education departments. Therefore, teachers in government-aided secondary schools of Malaysia are more than being just educators: planner, researchers, manager, facilitators, and role models to the local community (Johari et al., 2018). While bearing all these responsibilities, ironically the teachers are typically executioners of orders of their administrators and relevant superiors.

Workload may have different definitions according to different jobs, but the definition of workload among teachers is defined as the time consumed by a teacher to carry out both academic and non-academic duties that have been entrusted or tasked by the school, be it in or beyond classroom (Sharifah et al., 2014). The heavy workload leads to stress and putting the teachers under pressure: resulting poor performance in school and negatively affecting the school. This drastically demotivates teachers to work, as the affected teachers will slowly lose both intrinsic and extrinsic motivation to be committed to the educational institution. With the scenarios addressed above, the

lost and decline of interest and motivation among secondary school teachers will eventually hinder or demote the characteristics of being an agile workforce, in which will be discussed later in the literature review of Chapter 2.

1.3.2 Lack of Literature on Digital Competency Among Teachers in Malaysia beyond Classroom

Indeed, the government's effort in allocating huge federal funds for educational institutions to improve ICT infrastructure has been a very welcoming initiative to meet the demands in this technological era (Mohd Zulhilmi & Radzuwan, 2019). The researchers noted that, in the previous initiatives of 10th Malaysia Plan 2011-2015 to catapult the nation into becoming a high-income nation, the Interim Strategic Plan 2011-2020 had put high priority and emphasis on using ICT in all education institutions including schools in all aspects, including management and administration (Leong et al., 2016). In the Malaysian Education Blueprint 2013-2025 (MEB), ICT integration in Malaysia is done in three stages: the first wave (2013-2015) focused on the introduction of ICT policies, the second wave (2016-2020) aims to promote innovation in ICT, and finally in the third wave (2021-2025), the call for innovation throughout the system. In ensuring these initiatives successful, the MEB also clarified and emphasised that teachers are the most important asset, responsible of making digital literacy a success in education (Ministry of Education Malaysia, 2013b; Zuraidah et al., 2019). Looking into the initiatives planned in wave two and wave third, the word 'innovation' clearly explains a new creation from individual, linking to the cognitive domain of creating. In other words, Malaysia is on the verge of turning their educators into citizens with highly-specialised in digital competency.

Studies conducted, especially from the perspective of Theory of Planned Behaviour (TPB), Technology Acceptance Models (TAM), and Technological pedagogical content knowledge (TPACK), were on the perspectives of technology usage in classroom and also education, but not the investment on the teachers' competency (Simin et al., 2016; Siti Nur Aqila et al., 2019). Further, the Ministry of Education Malaysia had conducted a survey in 2010 and reported that almost 80% of the teachers used ICT less than an hour in a week and one third of their students reckoned that their teachers were presumably frequent users of ICT (Tan, 2016; Ministry of Education Malaysia, 2013a). Generally, it can be summed up that most researches conducted show teachers face similar barriers or challenges such as the lack of time, resources, technical support, and access, of which are mostly extrinsic factors (Mirzajani et al., 2016; Simin et al., 2016; Siti Nur Aqila et al., 2019). To empower teachers with better digital competency, programs had been carried out to train teachers on the usage of ICT, which led to arguments on the effectiveness as they had been carried out through cascading as a means to reduce financial expenses (Mohd Zulhilmi & Radzuwan, 2019).

However, to date, there are very limited literature and resources disclosed to the public regarding digital competency, be it for teachers or citizens. What has become very alarming, as reported in the MEB, UNESCO claimed ICT has not been utilised to its maximum potential, but instead, frequently used for its word-processing applications (Ministry of Education Malaysia, 2013b). Further, data accumulated from Smart School Qualification Standards' (SSQS) survey (Resource and Educational Technology Division MOE, 2019) may not provide enough insights about the level of ICT competence among teachers as most of the questions were related to utilisation of ICT in classroom for teaching and learning purposes. It is arguable that most of the

time, ICT in classroom was merely used for screen projection and word processing. But to what extent do projecting on the screen and playing media in the computer portray the competence in ICT? Therefore, this begs the question of how digitally competent teachers are, and how can digital competency contribute to workforce agility, basing on the DigComp 2.1 framework.

1.3.3 Lack of Empowerment and Autonomy beyond Classroom

According to Deci et al. (1989), the sense of choice to introduce and control self-action is called self-determination. Fostering self-determination means to foster independence or choice in practices and work conduct from the beginning and is practised over time. No doubt, employees who are empowered are active and productive people; leading to higher job satisfaction and eventually contributing to the effectiveness of the organization (Sani Dahiru et al., 2017). In a previous research, teacher empowerment had been investigated and proved that it was not a total means that contributed to improving instructional quality in classroom and also students' high performance in academic (Marks & Louis, 1997). Plus, branding teachers in government-aided schools of Malaysia as jack of all trades is no longer considered as a taboo: bearing responsibilities beyond classroom and having to involve in secretarial, managerial, and administrative tasks. Thus, with the reasons stipulated above, the teacher empowerment model is excluded in this study, hence the emphasis on employee empowerment.

Similar to other professions, teachers bear tremendously huge responsibilities in their day-to-day work. Henceforth, autonomy must be given to teachers to perform their duties with diligence and if possible, nothing to hold them back. This is essential as teachers have to make informed decisions in various aspects (Johari et al., 2018).

Lacking of empowerment and autonomy cause uncertainties and loss of confidence in their abilities to pursue their job and in turn, resulting underappreciation and overstressed (Ritter, 2019). Also, to promote innovation and strengthen implementations, especially related to ICT, teachers need authority and freedom to be the agent of change. Without these two key elements: autonomy and empowerment, reforms and innovations may not take place (Avidov-Ungar & Hanin-Itzak, 2019).

There were many incidences where lacking of empowerment could take a toll on the mental and emotional health of the teachers. Despite being encouraged to conduct action research in schools, these teachers-cum-researchers faced numerous challenges such as time constraint, rigid school rules and structures, lack of commitment from colleagues, and also lack of support from administrators. These stumbling blocks impeded empowerment and autonomy beyond classroom, as changes require authority and willingness by the administration (Shanmugam & Mee, 2017). In a sample of 256 secondary school teachers in Klang, one previous study has shown that more than forty percent of the respondents claimed to spend an equal amount of time in both clerical tasks and classroom teaching (Othman & Sivasubramaniam, 2019). Though the number may be insignificant to represent the whole population of teachers, it is rather alarming.

While previous studies, researches and surveys had been conducted to look into empowerment of both settings: in classroom and out of classroom, of students' achievement as benchmark of teachers' performance, very little literature has discussed on the effectiveness of teacher beyond classroom to ensure a high-performing organization, or specifically, in education institutions. Therefore, empowerment in this study is looking from the perspective of going beyond classroom,

making the organization effective with the given autonomy, trust and empowerment to teachers as employees in the organization.

1.3.4 Poor Knowledge Sharing System among Teachers in Malaysia

Being the centre of knowledge dissemination, educational institutions must be made up of professionals with vast experience and knowledge in order to create knowledgeable future generations. As an intangible asset to any organisations, knowledge must be well utilised by all members of the organisation in contributing success to the organisation for a long term. However, among the common problem faced by many organisations in regards to knowledge is the lacking of desire to share amongst team members or with the organization (Omar et al., 2016). One of the observed causes in that study was ineffective training carried out. Furthermore, pointed out in the research, which is based on an oil and gas industry, expatriates seemed to have a better knowledge sharing behaviour as compared to Malaysians. The researchers also inferred that it could be the working experience across the globe nurtured this culture among the expatriates.

In driving the education system towards excellence by 2025, the initiatives related to knowledge sharing from wave 1 to wave 3 are as follows: encouraging teacher coaching, enhancing teacher support, and the cultivation of peer-led culture for professional excellence (Ministry of Education Malaysia, 2013). Thus, it is also the ambition of the Ministry to cultivate and instil knowledge sharing behaviour among the teaching professionals. A study on the responsibilities and roles of Excellent Teachers, over and over again, put emphasis on the importance of Excellent Teachers as distinguished and recognised expertise in knowledge sharing among peers of different schools in the same districts. This culture of sharing knowledge, skills, and

experience poised to impact other teachers with the aim of building the network, facilitating learning, building rapport, and most importantly, adding to the current body of knowledge (Tengku Ariffin et al., 2018).

The emergence of such initiatives in the Malaysian Education Blueprint 2013-2025 (MEB) could be due to the gap existed amongst teachers in knowledge sharing. In current practice, trainings have transformed the way they had been carried out. With the limited allocation in the annual budget, measures were taken in reducing expenditures to ensure trainings can be carried out. The cascading model has been employed since then as it is economical and quick as it works multi-level: from national-level to state, district, zones, and finally, school. Despite what cascading can best offer, more often than not, criticisms from grassroots noted that it is ineffective as messages passed are often distorted (Mohd Zulhilmi & Radzuwan, 2019). In addition, these training programmes are also criticised for being 'one-shot, superficial, fragmented, quick fix, disconnected and episodic in nature'. These weaknesses depict the deficiency and insufficiency in planning, whereby participants do not get to track their growth and development by tracking their progress, continuity, and articulation to advance further in contributing to their career growth and talent management (Rashid et al., 2017).

With all these disadvantages and criticisms of the training system, the dilution of information is much expected among the teachers. In fact, this was addressed by Datuk Dr. Amin Senin (2019), the 16th Education Director General of Malaysia in his new narrative of educational practice, to address the focus and profession work for year 2019. He mentioned about how information had been diluted due to the process of training and the passing down. In addition, he further mentioned how messages were

being ‘thickened’ as various parties and educational departments at times had interpreted information inaccurately, eventually adding workload to teachers. Both of these factors are deemed as challenges in educational practice. Therefore, the emphasis on appropriate knowledge sharing behaviour must be of the organization’s priority. Misinformed, confused, and poorly trained employees of educational institutions or teachers will cause mismatch to the organisation culture, vision and mission, and a threat to achieving the success and performance of the organization: resulting less competent and less knowledgeable employees to be agile in adapting and responding to the continuously changing working environment.

1.4 Objective of the Study

This study intends to explore the relationship between employee empowerment, digital competency, knowledge sharing and, workforce agility among school teachers in Malaysia, moderated by the use of social media. In addition, this study also explores on the level of digital competency among teachers based on the DigComp 2.1 framework. Hence, this study attempts to meet the objectives as follows;

i. To investigate the relationship between employee empowerment, digital competency, knowledge sharing, and workforce agility among school teachers in Malaysia; and
ii. To assess the moderating effect of social media usage in strengthening the relationship between employee empowerment, digital competency, knowledge sharing and workforce agility.

1.5 Research Questions

Based on the objectives of the study, the research questions below are developed:

i. What is the relationship between employee empowerment, digital competency, knowledge sharing and workforce agility?

ii. Does social media usage strengthen the relationship between employee empowerment, digital competency, knowledge sharing, and workforce agility?

1.6 The Scope of the Study

The variables investigated in this study are workforce agility, digital competency, employee empowerment, and knowledge sharing. This study also investigates the effect of social media usage as a moderator, on strengthening the relationship between the dependent variables and independent variable. Workforce agility of the teachers is the main focus of this study; hence this study tries to examine if teachers are equipped with better digital competency, more empowerment, good habit of knowledge sharing in contributing to workforce agility.

In addition, this study also proposed to investigate whether social media usage will further impact or reinforce workforce agility with the chosen aspects. Subsequently, the main target respondents of this research are teachers of secondary schools in government-aided school of Malaysia as they comprise one of the largest communities in the education sector to educate the nation.

1.7 Significance of the Study

This research attempts to add to the existing body of knowledge on workforce agility, and its relationship with digital competency, employee empowerment, and knowledge sharing, enhanced by the element of social media usage. One of the most important significance of this study is adding to the already very limited literature on workforce agility in education institutions. Also, this research would contribute to adding literature on employee empowerment amongst educators, from another perspective which of course, has been given less attention, as compared to teacher empowerment. Plus, this could also be the pioneering study of DigComp 2.1 in Malaysian education context. This study could be a basis or foundation to consider DigComp 2.1 as a suitable digital competency framework to be implemented across the nation by stages, starting with teachers, civil service, and finally, nationwide. Knowledge sharing behaviour of teachers will also be studied, basing on teachers' individual current practice which has rather limited literature in Malaysian context while most studies offer observations and views on trainings conducted. From the perspective of theoretical contribution, this study outlines how these three dependent variables and a moderating variable are bound together in creating an agile workforce from the perspective of motivation in oneself. The further depiction of the significance of this study comprising of the said variables above will be delineated in the upcoming sections: theoretical and practical contribution.

1.7.1 Theoretical Contribution

Literature cited from Muduli and Pandya (2018) claimed there has been no definite theory to underpin workforce agility. Therefore, with Self-Determination Theory (SDT) as the underpinning theory, this study intends to explore and expand the

view on this theory, synthesizing digital competency, employee empowerment, knowledge sharing, social media usage, and workforce agility. According to Deci and Ryan (2008), this theory delves into motivation of human beings in promoting the desire to grow, by categorizing them into several domains. Therefore, this applied research contributes to this theory in the field of education and management, positing from the perspective of the three basic needs required to achieve psychological growth; namely competence, relatedness, and autonomy (Niemiec & Ryan, 2009).

Thus, by forming a cohesive research framework based on the theory, this study also attempts to contribute to the existing body of knowledge pertaining to the theory by relating the independent variables of this study; employee empowerment, digital competency, knowledge sharing, and social media usage, to the three basic needs which are aforementioned.

Competence, as one of the three basic needs, is defined as the satisfaction of having able to put one's ability and skill into a challenging environment that can be translated into a meaningful experience; hence developing oneself (Legault, 2017). One of the variables related is the digital competency whereby it is presumed to be fundamental when teachers of this digital era have to cope with digitation in their work, transforming conventional methods into contemporary ways in dealing with information through digital media such as computers and smartphones. The satisfaction, assumingly, will arise when teachers are able to work more efficiently with technology.

The second component to fulfil is autonomy. Self-endorsement and self-governed are features of having autonomy (Bartholomew et al., 2009; Legault, 2016). Employees who are given the volition in decision-making or of their own actions, are

signs of employers giving the mandate or empowerment to the employee. Empowered employees seemingly have more motivation, poised to work more efficiently. Deci and Ryan (2000) claimed that, several previous studies highlighted the perceived competence should be accompanied by the autonomy given to result better satisfaction in competence and in turn, promoting higher intrinsic motivation. Hence, this study attempts to see should employee empowerment promote autonomy.

Relatedness, the third component to fulfil the SDT's three basic needs, is how people or employees are connected, by having the sense of belonging to a group or a culture. When relationships or connections between employees or people are fulfilling, they are foreseen to support each other's needs (Hadden et al., 2014). According Zainuddin and Perera (2019), social networking is associated with 'relatedness', and in this study, it explores on how employees share their knowledge; be it collecting or donating through various means. The interaction created through knowledge sharing, is able to establish or bond human beings, hence bridging the gap by supporting each other's needs.

With the inconsistencies found in other researches pertaining to SDT, the researcher intends to introduce a moderating variable of social media usage, to be included into the model to strengthen the relationship between the variables and also to establish and enhance the existing body of knowledge of the theory. For instance, Yusuf et al. (1999) had identified the dimension of competence to be less correlated to workforce agility ($\beta = .148$), while having competency as one of the keys of portraying to be agile. Another case of inconsistency found is in Sumukadas and Sawhney's research (2004) noted that information sharing somewhat had no correlation to

workforce agility. In other words, information sharing cannot be attributed to promoting workforce agility.

Therefore, this study aims to test these independent variables, moderated by the use of social media, to see if they are able drive employees in the educational institution; secondary school teachers in Malaysia in this context, to have inherent motivation to work autonomously according to the self-determination continuum, in which to result agile employees (Deci & Ryan, 2008; Gagné & Deci, 2005; Ryan & Deci, 2000b; Waege, 2007).

1.7.2 Practical Contribution

From various industries to organizations including schools, it is said that the workforce is the one anticipating change of the environment, not machines (AL-Kasasbeh et al., 2016). The key to achieving agility lies in the employees' proactive and adaptive behaviour with the level of knowledge they possess plus the inclination towards learning new things. Past researches had been conducted in manufacturing, industries and businesses, but lacking venture into education institutions. Thus, this study looks into variables or aspects that could contribute to workforce agility, namely digital competency, employee empowerment, knowledge sharing behaviour, and the use of social media as moderator.

This study believes that teachers who are digitally competent, empowered, and have good practice of knowledge sharing with the use of social media, will be an agile workforce in contributing to the effectiveness, performance, productiveness, and efficiency of the school as an organization. Educational leaders and administrators such as school principals and headmasters should gain the most by having agile