CUBIC JOURNALS Informative Journal of Management Sciences (IJMS) www.cubicjournals.com www.cubicwriter.com

AN INVESTIGATION OF THE IMPACT OF COVID-19 ON THE FUTURE OF WORK IN MALAYSIA: ACCELERATING TRANSFORMATION THROUGH DIGITAL COMPETENCY

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***Abstract*—** The COVID-19 pandemic has caused major societal changes that have a dramatic impact on many facets of society, including the future of work. This research aims to examine the influences of the successful hybrid working model. The factors that will be discussed in this study included the internal factors such as digital talent, digital competency, worker competitiveness and the external factors, revolution of industry 4.0 in workforce. In this study, the primary data will be collected through questionnaire by using the online survey platform – Google Forms. The sampling method and technique for this study is convenient sampling of non-probability sampling method. Total 130 responds have been collected, in which the survey is circulated within Malaysia. The result of the study revealed that digital talent, digital competency, and worker competitiveness have significant on the success of hybrid working model. On the other hand, the external variable, revolution of industry 4.0 in workforce on the success of hybrid working model is insignificant.

Keywords—Digital Competency, Covid-19, Hybrid Working, Industry 4.0

I. INTRODUCTION

The Covid-19 pandemic accelerated the transformation of the future of work for most organizations in the world. When Covid-19 happened in 2020, it forced workers to adapt to the working-from-home culture rapidly, and it caused them to become more siloed in how they communicate, engage in lesser real-time conversation and spend more time in virtual meetings (Antonopoulou et al., 2021). With that, workers are expected to become tech-savvy as digital skill plays an important role that will shape the future of work in 2022 and beyond. It enables the organization to become an innovative, inclusive and insightful workplace and craft a strategy to re-assess how daily tasks get done more efficiently. Simply because digital and technological trends will drive the future of work.

In the 21st century, there is a notable transformation taking place in the work environment. The use of technology, changes in societal values, and a worldwide pandemic have contributed to the shift in how we work and the skills that are required. The Future of Work is of great importance as it will greatly impact the economy. According to the World Economic Forum, the global workforce is expected to undergo significant changes by 2025, with over 50% of employees needing to acquire new skills to stay employable. This shift will not only affect individuals and organizations but will also have far-reaching implications for the economy at large. It is essential to comprehend the changing dynamics of the labour market to ensure economic stability and growth.

In addition, the Future of Work holds significance for individuals too. As technology progresses, it will present fresh job prospects, but will also demand different abilities and knowledge. Workers who have the ability to adapt and possess a wide-ranging skill set will be better equipped to thrive in the evolving job market. Thus, it's essential for individuals to be mindful of the skills that will be in high demand and to consistently develop their expertise to remain competitive.

The Future of Work holds significance because it will affect our way of life and how we engage with each other. The pandemic has resulted in a rise in remote work, and many people anticipate that it will continue to be a prominent aspect of the Future of Work. This transition could result in more versatility for workers, but also poses novel difficulties in terms of preserving team relationships and communication. To navigate these changes, it's crucial to comprehend how the Future of Work will impact our social and personal lives.

Despite the aforementioned reasons, the Future of Work also holds importance for organizations themselves. The capacity to appeal to and retain talented employees will pose a significant challenge for companies in the future. Businesses that can establish a constructive work culture, provide avenues for skill enhancement, and offer adaptable work arrangements will be more successful in recruiting top-tier talent.

The purpose of this study is to investigate the significance of digital competency as vital components of the Future of Work. The research aims to identify why these skills are crucial and how workers can equip themselves with such proficiencies to maintain competitiveness in the future job market.

II. LITERATURE REVIEW

Nadzim & Halim (2022) conducted research that indicates a positive correlation between digital competency and employee agility. This finding is supported by several other researchers who have explored the relationship between digital competency and worker performance. Varshney & Varshney (2020)

discovered that workforce agility has a significant impact on employee performance, while Lim et al. (2021) proposed that developing digital competency is a crucial step towards achieving employee agility.

In their research paper, Jaafar & Fahmy (2022) highlight the importance of digital talent for organizations undergoing digital transformation. They note that defining digital talent can be challenging, as different organizations and industries have different interpretations of what constitutes digital talent. Generally, digital talent is understood to refer to employees who possess knowledge, skills, and abilities related to information technology. Despite the lack of a consensus definition, having digital talent is considered a crucial advantage for organizations. The research paper aims to develop a framework for identifying digital skills specifically for the petrochemical industry in Malaysia.

According to the research conducted by Khan et al. (2021), the world is now transitioning into a digital economic era, and Malaysia needs to be prepared to become an information-rich society. In order for Malaysia's digital economy to succeed, businesses must adapt to the rapid technological changes that impact the way they work. To remain competitive, companies need to consider improvements in their workforce skills. Former Malaysia Minister of Youth and Sports, Khairy Jamaluddin, highlighted that the rapidly developing digital economy is increasing the demand for highly skilled technical workers and digital business skills. Industry 4.0 is not only about investing in new technologies and resources to boost efficiency, but it also has a broad influence on different aspects of human activities and affects every aspect of their lives. With the advancement of technologies, it is apparent that the potential workforce needs to be technologically capable to remain competitive not only within their organization but also in the market and industry.

Access to skilled labour is a critical factor that distinguishes successful organizations from unsuccessful ones. In the era of Industry 4.0, a skills gap is occurring across all industries, and jobs are changing faster than ever before due to rapid developments in robotics, artificial intelligence (AI), metaverse, and other new technologies that require a higher level of digital competency. According to a World Economic Forum report by Gray (2016), there are ten skills required for the Industry 4.0 era, including complex problem solving, critical thinking, creativity, people management, coordination, emotional intelligence, judgement and decision-making, service orientation, negotiation, and cognitive flexibility. These digital competency elements drive the workforce to be more adaptable to fast-moving technology.

From a communication practitioner point of view, this research aims to determine the necessary level of digital competency in organizations to effectively implement and utilize technology in daily operations, particularly in a hybrid work environment that has become prevalent post-pandemic. A recent study by Cisco (2023) found that 74% of Malaysians prefer a hybrid work model. Indonesia had the highest

preference at 84%, followed by Vietnam at 76%, Singapore at 71%, Thailand at 68%, and the Philippines at 60% across ASEAN markets. In Malaysia, 60% of respondents reported increased productivity, and 83% stated that they have been able to learn, grow and succeed in their roles over the past two years. The survey also revealed that technology is a top priority for working from home, with 55% saying that increased use of technology was critical, and 50% indicating a greater use of virtual meeting and collaboration tools. These findings suggest that the adoption of a hybrid work model is evolving and accelerating faster than expected post-pandemic, highlighting the crucial role of digital competency in the future of work.

Aardenburg (2021) notes that several factors are critical to the success of a hybrid work model, including culture, people, technology, and processes. With respect to the research topic, the right technology tools are essential for any remote-first infrastructure. Technology should be seen as an enabler that helps organizations transition to a hybrid work model. Digital transformation has become a necessity for businesses of all sizes and industries to survive, and having adequate digital infrastructure is crucial for future work (Gadhi, 2020). However, some organizations have faced challenges when transitioning to remote work, such as a lack of digitized paperwork, concerns regarding information confidentiality, and the fact that technology-related problems take longer to resolve remotely. Such problems could negatively impact workers' productivity.

III. RESEARCH METHODOLOGY

In this study, a deductive approach is employed. An instrument has been meticulously crafted to explore the relationships among the variables involved in the study. The study focuses on the dependent variable, which pertains to the success of the hybrid work model, and the independent variables, including digital talent, digital competency, and worker competitiveness.

In this study, the researcher will conduct an online questionnaire through Google Forms to collect data from the target respondents. In this research, an electronic survey is employed as the preferred method for data collection due to its recognized convenience and efficiency. A total of 123 participants will receive the online questionnaire via communication platforms such as WhatsApp and LinkedIn.

The questionnaire comprises two distinct sections. Section A is dedicated to gathering demographic information from the respondents, while Section B is designed to assess all four variables. Responses to all items are solicited using a five-point Likert scale, spanning from one to five (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

A. Independent and Dependent Variables

From the literature review, there are four variables which affecting the company productivity as tabulated in Table I.

TABLE I. SUMMARY OF VARIABLES FOR DIGITAL COMPETENCY

	Independent Variables	Dependent variable
Digital Competency	Digital talent (Jaafar and Fahmy, 2022)	Factors that influence the success of hybrid work model (Gadhi, 2020; Melhem et al., 2020; Vyas, 2022)
	Relation between digital competency and worker competitiveness (N Khan et al, 2021)	
	Revolution of Industry Relation 4.0 in workforce (Gray, A., 2016)	
	Impact of digital competency in future of work model (Cisco, 2023)	

B. *Data Analysis Method*

In this study, SMART PLS 4 software will be used to analyse the data collected from the questionnaires. To analyse the model's outcomes, Partial Least Squares Structural Equations Modelling (PLS-SEM) will serve as the chosen analytical technique. SMART PLS 4 software is employed due to its robust capabilities, particularly in constructing reliability and validity assessments with small sample sizes. Additionally, SMART PLS 4 can effectively address abnormal data through the central limit theorem, ultimately enhancing R-squared values and minimizing errors.

IV. RESULTS

By using SMART PLS 4 Software to compute the data, the data were analysed.

A. *Structural Model Path Coefficients*

The study conducted a PLS-SEM analysis, concentrating on the investigation of path coefficients as a crucial technique for scrutinizing the structural model, after determining the validity and reliability of the model. In this study, standard deviations, T-statistics, and P-values were evaluated using the bootstrapping technique.

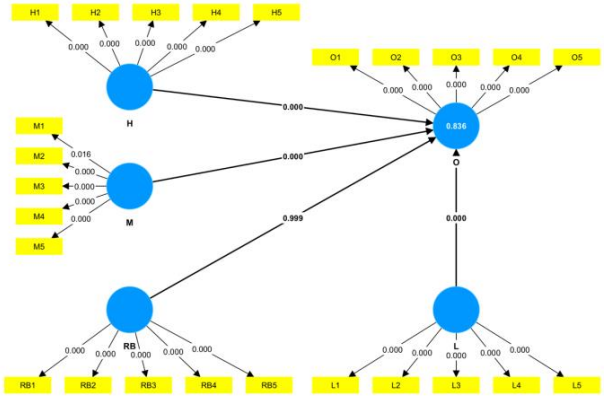

Fig. 1. Structural Model (Bootstrapping)

Fig. 1 presented the structural model of this study. This model is computed based on bootstrapping method, where it has bootstrapped to 130 samples.

TABLE II. SUMMARY OF STRUCTURAL MODEL PATH COEFFICIENT

Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values	Result
H -> O	0.396	0.396	0.053	7.416	0.000	Supported
L -> O	0.172	0.174	0.032	5.442	0.000	Supported
M -> O	0.548	0.551	0.071	7.743	0.000	Supported
RB -> O	-0	-0.003	0.051	0.002	0.999	Unsupported

Table II projected the summary of a statistical analysis that examines the relationship between several variables (Digital talent, Impact of digital competency in future of work model, Worker Competitiveness, and Revolution of Industry 4.0 in workplace) and an outcome variable referred to as Success of hybrid work model. A significant level was set at 0.05 (5%). This results that when P-value is exceed the significant lever of 0.05, the result is unsupported.

From Table II, the Revolution of Industry 4.0 in workplace (RB) does not have significant relationship with the success of hybrid work model (O). Other independent variables, Digital talent (H), Worker Competitiveness (M), and Impact of digital competency in future of work model (L) have significant relationship with the independent variable – Success of hybrid work model (O).

B. *Coefficient of Determination (R^2)*

R^2 value, also known as the coefficient of determination, is the most frequently used metric to assess the structural model's capacity for prediction. The R2 number varies from zero to one, with a larger value indicating more prediction accuracy.

TABLE III. R-SQUARE RESULTS

	R Square	R Square Adjusted
Success of hybrid work model (O)	0.836	0.831

From Table III, the R Square value of 0.836 in this table suggests that approximately 83.6% of the variability in the "Success of hybrid work model" (variable O) is explained by the independent variables or factors included in this study. This is a relatively high R Square value, indicating that this model is successful in capturing and explaining a large portion of the variance in the outcome.

In addition, the R Square Adjusted value of 0.831 in the table represents the adjusted version of R Square. It still reflects the proportion of variance in the "Success of hybrid work model" (variable O) explained by the independent variables, but it considers the complexity of the model. This adjusted value, which is slightly lower than the unadjusted R Square, indicates that the model maintains a high degree of explanatory power even after considering the number of predictors.

In conclusion, Table III provides valuable information about the goodness of fit of this model in predicting the "Success of hybrid work model" (O). The high R Square value (0.836) suggests that the model is effective in explaining a significant portion of the variability in the outcome. The slightly lower R Square Adjusted value (0.831) takes into account model complexity and remains indicative of a strong model fit.

C. *Hypotheses Testing*

a) H1: Digital talent has significant influence to drive the success of hybrid work model: As evident in Fig. 2, the H1 is supported by this study, where it showed digital talent is a significant variable that contribute to success of hybrid work model, because the value is at 0.000.

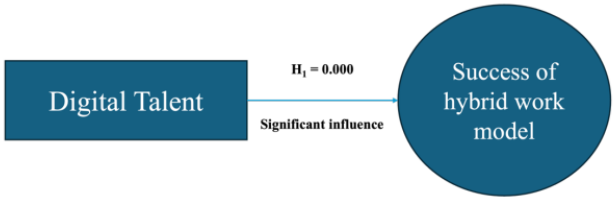

Fig. 2. H1: Digital talent has significant influence to drive the success of hybrid work model

b) H2: There is a significant relationship between digital competency and hybrid work model: As shown in Fig. 3, the result has supported H2, in which the value showed 0.00 indicates that digital competency is one of the significant influences that will affect success of hybrid work model in an organization.

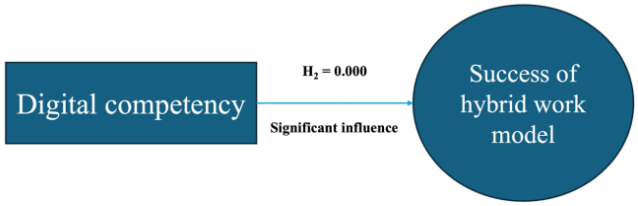

Fig. 3. H2: There is a significant relationship between digital competency and hybrid work model

c) H3: There is a significant relationship of worker competitiveness impact on the hybrid work model: According to Fig. 4, the result showed that the worker competitiveness can significantly impact the success of the hybrid work model. Employees who possess strong skills, motivation, and adaptability are better positioned to excel in both physical and remote work environments.

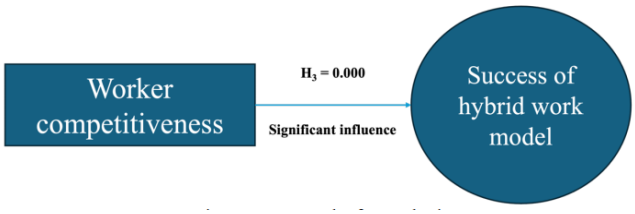

Fig. 4. H3: There is a significant relationship of worker competitiveness impact on the hybrid work model

d) H4: There is a significant influence from the factor of revolution of Industry 4.0 in workplace impact on the hybrid work model: According to Fig. 5, the result of this study does not support H4, as the value of 0.999 is greater than 0.5, indicates that there is no significant relationship between revolution of industry 4.0 in workplace contribute to the success of hybrid work model. Research studies suggest that the influence of Industry 4.0 technologies on the success of the hybrid work model can be nuanced and context dependent.

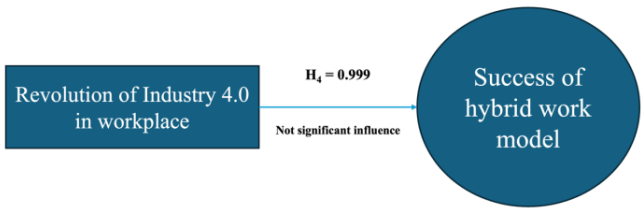

Fig. 5. H4: There is a significant influence from the factor of revolution of Industry 4.0 in workplace impact on the hybrid work model

V. CONCLUSION

In conclusion, the study on the success of the hybrid work model in the post-COVID-19 era has unveiled a multifaceted landscape shaped by various factors. The findings underscore the pivotal role of digital talent, digital competency, and worker competitiveness in determining the effectiveness of hybrid work arrangements.

The study's results affirm that employees with advanced digital skills and adaptability are more likely to thrive in hybrid work settings. For instance, consider a marketing team where individuals proficient in data analytics can seamlessly collaborate with colleagues both remotely and in the office. This demonstrates how digital talent enhances the team's capacity to deliver results in a hybrid work environment.

The research also highlights the significance of digital competency in navigating the complexities of remote and hybrid work. As an example, think of a software development team that excels in using collaborative coding platforms, ensuring that projects progress smoothly, regardless of whether team members work from home or on-site. This illustrates how digital competency bolsters teamwork and productivity.

Worker competitiveness emerged as another critical factor influencing hybrid work success. Employees who exhibit competitiveness, driven by skills, motivation, and adaptability, contribute significantly to an organization's ability to thrive in a hybrid work model. Consider a sales team where competitive sales professionals consistently meet targets by leveraging their drive and adaptability in remote and office-based interactions. This exemplifies how worker competitiveness positively impacts results in hybrid work scenarios.

The study also acknowledges that contextual factors can shape the success of hybrid work models. For instance, the impact of Industry 4.0 technologies on hybrid work may vary across industries. In manufacturing, automation driven by Industry 4.0 can significantly enhance remote work, whereas in the service sector, the impact may be moderated by the need for close collaboration. This illustrates how the industry context influences the relationship between technology adoption and hybrid work success.

A key takeaway from this study is the importance of research-based decision-making. Organizations can use evidence from studies like this one to inform their strategies. For instance, a forward-thinking company, after reviewing research findings, may decide to invest in digital skills training for employees to better equip them for hybrid work.

While the study provides valuable insights, it's essential to recognize its limitations and the evolving nature of hybrid work models. Future research should continue to explore these dynamics to help

organizations adapt effectively to the changing landscape of work arrangements in the post-pandemic era. In doing so, organizations can enhance their resilience, productivity, and competitiveness in an ever-evolving work environment.

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