

## Examining The Impact Of Digital Transformation On Employee Engagement In Human Resource Management: A Cross-Cultural Assessment Between Malaysia And China

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### ABSTRACT

The cross-cultural research looked at how employee engagement in China and Malaysia is affected by digital transformation. In two rapidly developing Asian nations, employee engagement, loyalty, and participation were impacted by digital activities, technological adaptation, and organisational culture. The study looked at how social norms influenced engagement and usage of technology. A structured questionnaire was used in the quantitative study to gather data from a chosen sample of respondents. China's digital revolution was hastened by strong government policies and technological advancements. Chinese companies used artificial intelligence, robotics, and statistical insights to boost employee satisfaction and efficiency. The gradual digital transformation in Malaysia placed a strong focus on balance, cooperation, and inclusivity. To enhance digital readiness, businesses are associated with the Malaysia Digital Economics Framework. Employee participation in technology adoption has expanded due to teamwork, collaborative management techniques, and flexible scheduling. Notwithstanding cultural disparities, digital transformation improved participation in both countries. Compared to Chinese performance-focused strategies, Malaysian workers demonstrated better cooperation and mutual aid, which increased their level of participation. Participation in cultural sensitivity, ongoing education, and efficient administration was improved by digital transformation. The research concluded that human-centred digital transformation required worker empowerment and cultural change. Through the digital shift, efficiency and involvement are encouraged by respect, interactions, and flexibility. The research clarified how employee engagement and Asia's adoption of technology are influenced by culture. According to the study, sustaining engagement has required a human-centred strategy that calls for communication, trust, and flexibility...

**Keywords:** *Digital transformation; Employee engagement; Malaysia; China; Cultural variables; Corporate culture..*

### 1. INTRODUCTION:

For modern businesses to flourish, digital transformation is essential. Digital innovations are used throughout the company to improve effectiveness, creativity, and making decisions. Global companies embrace digital technology to increase productivity and collaboration. Connection, communication, and employment participation affect this technological and changing culture. Digital transformation has altered employee engagement, corporate culture, and productivity in Malaysia and China, both rapidly expanding Asian nations. Employee engagement is a psychological investment in the organisation. Inspiration, innovation, and profitability are all improved by employee engagement. They more easily accept the effectiveness of organisations and transformation. Organisational digital transformation affects commitment of employees. Digital transformation enhances engagement by enabling adaptability, independence and instantaneous interactions (Kumar, 2023). Technological saturation and resistance to transformation may cause anxiety, employment uncertainty, and disinterest caused by insufficient

leadership. Government measures to promote innovative technology are driving China's digital transformation. Chinese firms embrace artificial intelligence, cloud services and robotics. Because of digitisation, modern workplace procedures prioritise based on data and working remotely. Employees learnt new abilities and worked in technologically proficient environments. It involves adjustment and knowledge. Corporate culture authority and cooperation in China are giving way to transparency and creativity. Employee engagement relates to digitised upgrading, visible administration, and modern evaluation processes in Chinese firms. Malaysia's digital transformation is progressing under the Malaysia Digital Business Blueprint. Malaysian organisations use digital technology to boost efficiency, customer satisfaction, and blended employment. Organisational digital integration and connectivity impact employee engagement. Malaysian workplace society promotes interpersonal relationships and unity; therefore, digital transformation must combine technological performance with interpersonal relationships. Enhanced technological guidance and instruction improve staff engagement and corporate culture credibility (Teck et al., 2021). China and Malaysia demonstrate how digital transformation affects

worker engagement distinctly and identically. Both countries know technology helps innovative and adaptive companies. Social norms substantially affect workforce digital transformation views. Chinese leaders, innovative rewards, and achievements assessments encourage engagement. In Malaysia, comprehensive interaction, collaborative supervision, and teamwork enhance engagement. Culture impacts how digital initiatives are perceived and employee motivation.

## 1. BACKGROUND OF THE STUDY

Digital technology has rapidly changed how companies' function, interact, and handle their personnel. Digital transformation involves examining company structures, managerial tactics, and culture at work, not just adding new technologies. The digital transformation in Asia is led by China. The Chinese government supports the digital sector through programs such "Made in China 2025" and "Internet Plus." Their initiatives encourage robotics, machine learning, and massive-scale analytics. Thus, Chinese firms have automated production, customer service, and employment. In a rapidly evolving workplace, professionals must evolve with new developments in technology. This gives engagement opportunities and challenges. Employee collaboration and effectiveness are increased by digital technology. However, stress to acquire innovative abilities and be effective in an atmosphere of competition may induce anxiety and exhaustion. Chinese firms must integrate innovative technologies alongside employee engagement and satisfaction (Ye et al., 2024). Malaysia's technological evolution, on the other hand, is progressive. Malaysia created the Malaysia "Digital Economy Blueprint and MyDIGITAL" to increase industry adoption of digital technology. Malaysia's comprehensive transition prioritises technological competence, employee education, and equitable availability of technology, but it's slower than China's. Malaysian companies use digital technologies to better collaborate, make choices, and remote employment. These approaches work best with adaptable individuals and supportive institutions. Malaysian organisations foster collaboration, tranquilly, and human relationships, which impacts technological change and worker satisfaction. Transparent interactions and relationships with management help digital employees appear related and capable (Turner et al., 2024). China and Malaysia vary ethnically and administratively. Chinese workplace culture emphasises rapidity, effectiveness, and competitiveness. Companies emphasise productivity and accomplishments, whereas individuals desire achievement and recognition. Digital transformation is a way to compete in this changing environment. Chinese company hierarchy may inhibit collaboration and personal involvement if mismanaged. Malaysian establishments encourage balance, diversity, and psychological support. When workers feel appreciated and engaged, they participate more fully in digital transformation. Differences in culture affect employee technological utilisation and digital activities.

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## 3. PURPOSE OF THE RESEARCH

A cross-cultural study evaluated how digital transformation influences worker engagement between Malaysia and China. The investigation explored how digital efforts, technological developments, and shifts in organisation influenced staff inspiration, dedication, and engagement. It examined the effect of culture on digital transformation and engagement. Malaysia and China, that were quickly becoming digital, were studied for how individuals responded to technology and how institutions supported them. The research explored whether digital technology and procedures have increased worker interaction, collaboration, and engagement. It studied how management backing, technical abilities, and entrepreneurship cultures sustained engagement throughout the digitisation process. Social conventions including socialism, hierarchical structures, and power disparity affected employees' digital endeavour attitudes in both countries. The study also advised firms on how to align digital transformation with employee requirements and mindset. Personnel executives and managers received helpful advice on diverse digital efforts to promote engagement. The study added cross-cultural variables to digital transformation debates in academia. Cultural variables linked technology adoption and participation by people in the study. It showed that digital transformation requires technical innovation, worker participation, reliability, and adaptation in society.

## 4. LITERATURE REVIEW

Several previously published research papers have discussed about the relationship between digital transformation and employee engagement. Employing the US and China as examples, the research examined human resources management (HRM) procedures across civilisations. The investigators investigated how societal norms, methods of management, and corporate culture and structures affect HRM in both nations. The research attempted to uncover key elements affecting employment, instruction, evaluation of achievement, and relationship with workers. It examined how individuality, collective behaviour, and independence effect management choices and employee engagement. US HRM seemed to be driven by personal achievement, merit-driven structures and autonomous management decisions. US firms appreciate independence, creative thinking, and openness. Instead, Chinese HRM promotes leadership, communal behaviour, and corporate culture and commitment. Recurrent

centralising decision-making and distinctive compatibility. Evidence revealed that culture influences HRM policies and efforts. In conclusion, multinational companies must adapt their HRM strategy to local customs. The study also suggests that cross-cultural variables understanding boosts company productivity, employee satisfaction, and worldwide financial prosperity (Yusuf et al., 2024). Another research examined how cultural variables affect Chinese and Malaysian employees' online educational training. The researchers investigated how values from society, societal expectations, and technology perspectives affect worker's' online education. The research examined psychological, psychological, and cognitive involvement between the two cultures. It also investigated how country culture impacts virtual learning and digital educational instrument adoption among employees. Findings demonstrated cultural variables greatly affect employee digital engagement. Chinese employees showed collectivism and appreciation for authorities in electronic education through regulation and setting objectives. Flexibility and multilingual instruction influenced Malaysian workers' interactivity and collaborative participation. Distance education is affected by distance from power, fear of uncertainty, and interpersonal habits, a study showed. Culturally relevant digital learning strategies boost learning and engagement. The researchers emphasised tailoring instructional methods to regional cultural variables to enhance inclusivity, inspiration, and knowledge of technology in diverse learning environments (Wang et al., 2025). Another research explored how knowledge administration practices impact Chinese and Malaysian high-tech enterprises' business success. The study studied how virtual human-Artificial Intelligence communication facilitated this bond. Through knowledge generation, sharing, and implementation, companies enhanced effectiveness and creativity. The research also examined whether artificial intelligence-driven solutions increased collaboration, making decisions, and economic success across ethnicities and technology. The findings indicated that knowledge administration techniques enhanced business efficiency in both countries. Collaborating knowledge and growth boosts company creativity and competitive edge. Virtual artificial intelligence and human interface increased the handling of information, interpersonal interaction and solving issues, the study indicated. Chinese corporations valued pyramidal data structures and controlled management, whereas Malaysian firms chose agility and cooperation. Businesses with technologies and human capabilities moderated AI more. Human intelligence and AI increased organisational agility and effectiveness, stressing the need for technological-human harmony in technological fields (Cui, 2025).

## 5. RESEARCH QUESTION

- How does digital transformation impact employee engagement?

## 6. RESEARCH METHODOLOGY

### 6.1 Research Design

The study's methodology was based on quantitative data. For the quantitative data analysis, the investigator relied on SPSS version 25. The direction and intensity of the statistical association were measured using the 95% confidence interval and odds ratio. Data is considered statistically significant when the p-value is less than 0.05. With descriptive analysis, the underlying nature of the collected data was better comprehended.

### 6.2 Sampling

The investigator learnt a lot through employing a random sample method. The investigator confirmed that 675 individuals were part of the sample utilising the Rao-soft software. 850 questionnaires were delivered by the investigator with the goal to collect data for this investigation. There were 809 full questionnaire sets; 31 of them were excluded from the final tally because they were deemed incomplete. A total of 778 individuals were included in the sample, with 405 being female and 373 being male.

### 6.3 Data and Measurement

The quantitative evaluation of data was found to be the primary source of data for the investigation. With the goal to get quantifiable data, the investigator used questionnaires that asked respondents to rate their opinions on a Likert scale ranging from 1 to 5. The investigator focused mostly on internet-accessible resources while collecting secondary data.

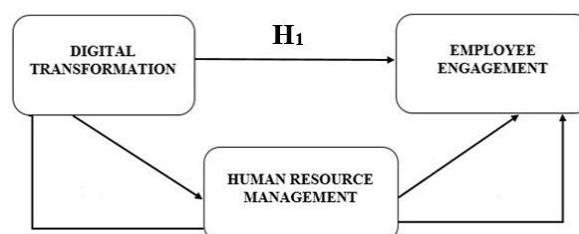
### 6.4 Statistical Software

The statistical examination of the investigation was conducted using SPSS 25 in conjunction with Microsoft Excel.

### 6.5 Statistical Tools

Description statistics have shed light on many program-specific demographic and level features. Factor analysis to test theoretical relevance and dependability, analysis of variance (ANOVA) to establish odds ratios with 95% confidence intervals, and a plethora of other statistical approaches are used in inference-based investigation.

## 7. CONCEPTUAL FRAMEWORK



## 8. RESULT

### • Factor Analysis

One goal of Factor Analysis (FA) is to use publicly accessible data to find previously unknown components. When there are no clear diagnostic or visible indicators, regression coefficients are often used in evaluations. Finding apparent links, flaws, or vulnerabilities is the main objective of this investigation. Multiple regression investigations provide the datasets used in Kaiser-Meyer-Olkin (KMO) tests. Findings show that both the



theoretical model and its randomly selected parameters provide reliable predictions. Duplicate data entries might be discovered. Simplifying the proportions makes the data more comprehensible. The investigator is given a number by KMO ranging from 0 to 1. It was concluded that there were enough samples when the KMO value was between 0.8 and 1.

The following amounts have been approved by Kaiser: According to Kaiser's suggestions, the following are the requirements for permission:

An appalling 0.050 to 0.059, well below the usual range of 0.60 to 0.69. The typical range for middle grades is between 0.70 and 0.79.

A quality point score between 0.80 and 0.89. The interval from 0.90 to 1.00 astounds them.

Table 1: Examination of KMO and Bartlett's Sampling Adequacy

According to the Kaiser-Meyer-Olkin scale: 0.978

The results of Bartlett's test of Sphericity are as follows:

6850.175 is the approximate chi-square value

190 is degrees of freedom (df); sig = 0.000.

**Table 1: KMO and Bartlett's Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.978
Bartlett's Test of Sphericity	Approx. Chi-Square	6850.175
	df	190
	Sig.	.000

In most circumstances, this makes meeting sample criteria uncomplicated. The investigator employed Bartlett's Test of Sphericity upon the relationship matrices to verify the existence of statistical significance. When the Kaiser-Meyer-Olkin score is 0.978, it is deemed that the sample size is enough. A p-value of 0.00 is provided by its findings of Bartlett's Sphericity test. The positive results of Bartlett's Sphericity test lead one to believe whether the correlation matrix has nothing unique.

## ❖ INDEPENDENT VARIABLE

### • Digital transformation:

Digital transformation covered all commercial, academic, and charitable organisations using digital technologies. It changed company operations and consumer value. It exceeded deploying fresh applications and gadgets. The environment, perspective, and strategy transformed substantially. Digital transformation companies attempted to boost efficiency, customer satisfaction, and profitability in a constantly evolving digital environment. Digital transformation altered business processes, interactions, and making choices (Zaoui & Souissi, 2020). Machine learning and workflow automation conserved time as well as funds. Data analysis has helped businesses make better judgements. Cloud computing enabled adaptability, capacity, and remote discussion. Numerous businesses have used online resources for tailored services and

immediate client engagement. Administrations use digital transformation to enhance public services. Electronic governance reduces costs associated with administration and increases efficiency. Digital utilisation of key services reduced tangible barriers and inefficiencies. Telemedicine, internet banking, and innovative transport technologies helped the financial sector, healthcare, and transit. However, digital transformation presented obstacles. Online safety, the confidentiality of information, and technological disparities plagued companies. Skill limitations prevented many workers from adopting new technology. Small firms generally needed assets to create complex digital systems. Such transformation needs competent management, successful instruction, and constant creative thinking (Gong & Ribiere, 2021). Digital transformation altered education. Virtual education, electronic classrooms, and internet-based resources linked students and instructors. This rendered learning more adaptable and affordable. Multimedia technologies enable learners to learn at their own pace and allow professors to offer feedback.

## ❖ DEPENDENT VARIABLE

### • Employee engagement:

Employee engagement was employees' psychological interest in their business's goals. It exceeded job fulfilment and motivation. Employees who participated wanted employment and company success. They were aggressive, enthusiastic, and willing to struggle hard for company objectives. Employee engagement improved efficiency, loyalty, and attitude. In a committed environment, individuals felt appreciated and linked. Teamwork, sharing of concepts, and entrepreneurship were more widespread between such staff. Their job matched their values. Acknowledgement boosted employees' connectedness (Kwon et al., 2024). Efficiency, abandonment, and customer service increased with a psychological attachment. Associations were necessary for participation. Relationships, managerial skills, and corporate culture mattered. Clear communication allowed employees appreciate their role in the organisation. A caring manager inspires confidence. Assistance with development, and advancement in career boosted employee engagement. When employees saw a career path, they were more passionate and committed. Fitness and scheduling conflicts influenced workers' engagement. Encouragement, psychological support, and job flexibility boosted employee happiness. A varied and diverse environment made employees experience secure and valued. Companies used feedback and questionnaires to assess employee engagement and growth. However, alienation was troublesome. Workers lacking motivation or appreciation felt depressed. This could lead to employee turnover, efficiency, and morale among workers decline. Thus, companies have recognised involvement as an ongoing procedure involving work and change. Corporate culture and performance and sustainability depended on employee engagement (Riyanto et al., 2021). It offered employees meaning by aligning their goals with the business's. Engaged employees improved innovation, client satisfaction, and competition.

• **Relationship between digital transformation and employee engagement:**

In modern businesses, employee engagement and digital transformation are becoming more important. Digital transformation alters job duties, interaction, and company goals. Modern technology is everywhere in company operations, facilitating teamwork, creativity, and efficiency. When innovation empowers rather than replaces labour, employee engagement rises. Technological innovations improve employee engagement by enabling connectivity and independence. Workers may work at home through online applications, online settings, and networking apps. Interconnection fosters teamwork and commitment (Hizam et al., 2023). Technology enables remote and hybrid working, giving employees schedule freedom. Works-life equilibrium and versatility promote employee engagement and satisfaction. Digital transformation also allows for ongoing education and training. Virtual and online educational resources provide workers new skills and information. Enthusiasm and dedication increase when workers perceive opportunities for career and personal growth chances. Learning-focused digital cultures inspire workers to be interested and respond to new technology, increasing engagement. Technological innovation also boosts organisational openness and collaboration. Virtual indicators, assessment systems, and private communication platforms educate staff of objectives, advancement, and aspirations. Transparency fosters trust and aligns personnel with company goals. Acknowledgement networks and evaluation instruments promote engagement by rewarding successes and promoting productive discourse. The relationship underlying digital transformation and engagement among workers is complex. Managers who engage promote inclusion, instruction, and psychological protection throughout digital changes (Winasis et al., 2020). Employee engagement and digital transformation complement each other very well. Technologies that enable and match employee needs boost engagement. Motivated staff members thrive and respond greater to technological evolution.

The investigator has developed a hypothesis to assess the link among digital transformation and employee engagement considering the previous discussion:

- ***“H<sub>01</sub>: There is no significant relationship between digital transformation and employee engagement.”***
- ***“H<sub>1</sub>: There is a significant relationship between digital transformation and employee engagement.”***

**Table 2: H<sub>1</sub> ANOVA Test**

ANOVA					
Sum	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	69921.540	332	210.607	128.576	.000
Within Groups	728.960	445	1.638		
Total	70650.500	777			

This investigation provided remarkable results. Both the p-value (0.000) and F-value (128.576) are below 0.05, showing statistical significance. The findings determines that the alternative hypothesis, ***“H<sub>1</sub>: There is a significant***

***relationship between digital transformation and employee engagement”*** has been accepted, and the null hypothesis has been rejected.

## 9. DISCUSSION

The study indicated that digital transformation boosted staff engagement in Malaysia and China. The statistical results confirmed the alternative hypothesis that digital transformation altered how individuals interacted, collaborated, and were motivated in digitally transforming organisations. Evidence suggested that technological advances may improve employee involvement by boosting interpersonal interaction, openness, and adaptability. According to the research, funding from the government and a focus on innovative technology helped Chinese enterprises adopt the digital revolution faster. Chinese companies reformed utilising artificial intelligence, robotics, and internet technology to improve productivity and engagement. Encouragement, accomplishment, and creativity were the sources of inspiration for employees in China. Chinese corporate culture hierarchy hindered engagement. Decision-making guided by data and technologically driven transparency enhanced workforce loyalty and confidence. Digital interaction and education enhanced Chinese employee engagement. The research indicated that technological efforts, good relationship building, and encouraging administration enhanced employee engagement. Malaysian workers appreciated collaboration, compassion, and togetherness, which boosted digital tool involvement. Professionals in Malaysia became empowered and involved in the organisational transformation because to digital instructional materials, platforms for communication, and flexible work conditions. Digital transformation also increased worker independence, adaptability, and educational possibilities according to the results. Digital tools enabled remote cooperation, while immediate interaction solutions let staff communicate. These technology advances boosted satisfaction with work and productivity. The survey also noted change aversion, digital weariness, and insufficient skills. Workers in digital jobs who missed orientation or visibility faced ambiguity and anxiety which might limit engagement if not addressed.

## 10. CONCLUSION

The research concluded that technological evolution improved employee engagement in Malaysia and China. The investigation showed how technological implementation changed how workers interacted, cooperated, and performed. Technology, support from management, cultural variables adaption, and growth for staff all contributed to digital transformation achievement. National policy and innovations accelerated digital revolution in China. Chinese companies used artificial intelligence, robotics, and digital monitoring to boost worker efficiency and engagement. Admiration, productivity awards, and creativity inspired workers. Malaysia's digital transition was slower but focused on interpersonal relationships and inclusion. The results revealed workers appreciated cooperation, encouraging management, and psychological wellness. Malaysian companies that blended digital and human help had

increased engagement. The research found that cultural variables influence shaped employee reactions to digital change. Cooperation and unity in society affected Malaysian workers more than achievement-focused and performance-based structures did Chinese personnel. Although cultural variables, both nations showed that digital transformation fit with employee demands and

corporate culture and ideals improved engagement. The research showed that digital transformation was human-centred and technology. Maintaining involvement needs assurance, involvement, and development. Companies that combined originality and humanity had greater involvement and development..

## .. REFERENCES

1. Cui, J. (2025). The Knowledge Management Practices and Firm Performance: The Moderating Role of Digital Human-AI Interaction in High-Tech Enterprises of China and Malaysia.
2. Gong, C., & Ribiere, V. (2021). Developing a unified definition of digital transformation. *Technovation*, 102217.
3. Hizam, S., Akter, H., Sentosa, I., Ahmed, W., Masrek, M., & Ali, J. (2023). Predicting workforce engagement towards digital transformation through a multi-analytical approach. *Sustainability*, 6835.
4. Kumar, M. (2023). Exploring the Influence of Workforce in Digital Transformation and Its Effects on Employee Engagement in Business Operations. *XIBA Business Review*.
5. Kwon, K., Jeong, S., Park, J., & Yoon, S. (2024). Employee development and employee engagement: a review and integrated model. *Career development international*, 169-184.
6. Riyanto, S., Endri, E., & Herlisha, N. (2021). Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement. *Problems and Perspectives in Management*, 162.
7. Teck, T., Rathy, C., & Samy, P. (2021). Digital Revolution & Digital Culture, a Critical Review gap on Receptivity and Challenges of Digitalization on Employee Engagement, the Case of PHEI's in Malaysia.
8. Turner, J., Suki, N., & Jiang, N. (2024). 11 Digital Transformation and Its Impact on the Malaysian Labour Market. *The Future of Work in the Asia Pacific: Addressing Critical Skills Shortages for Sustainable Development*.
9. Wang, G., He, Y., Huang, Z., & Kumar, S. (2025). Quantitative Exploration of Cultural Influences on Digital Academic Engagement: Insights from China and Malaysia. *International Journal of Human-Computer Interaction*, 1-16.
10. Winasis, S., Riyanto, S., & Ariyanto, E. (2020). Digital transformation in the Indonesian banking industry: Impact on employee engagement. *International Journal of Innovation, Creativity and Change*, 528-543.
11. Ye, D., Xu, B., Wei, B., Zheng, L., & Wu, Y. (2024). Employee work engagement in the digital transformation of enterprises: a fuzzy-set qualitative comparative analysis. *Humanities and Social Sciences Communications*, 1-15.
12. Yusuf, D., Prinsen, G., & Maulana, Z. (2024). Human Resource Management (Hrm) Practices Across Different Cultures: An Evidence-Based Study In United States And China. *International Journal Of Social, Economic, And Business*, 89-106.
13. Zaoui, F., & Souissi, N. (2020). Roadmap for digital transformation: A literature review. *Procedia Computer Science*, 621-628.