Impact of Employee Engagement on Company Performance: The Four-Box Business Model as a Moderator: Perspectives from the COVID-19 Pandemic

Zining Zhu[✉], Charles Ramendran S.P.R, and Lai Soon Wong

Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak, Malaysia
zn.zhu@1utar.my, zining-zhu@hotmail.com, {charlesr, lswong}@utar.edu.my

Abstract. Since early 2020, the pandemic of COVID-19 has been causing significant business disruptions around the globe. The universal working method shifted from office work to a home-stay working approach. Companies face enormous pressure in this situation because their business growth and development are hampered. Meanwhile, employees become tense and uneasy as they worry about losing their jobs, which affects the performance and engagement of employees. According to the model of job demand-resource and management control system as theoretical foundations, the expected result of this research is to identify business model four-box as well as each box's contents that moderate the impact of employee engagement on business performance. The literature review reveals a dearth of research examining the impact of employee engagement on business performance using the four-box business model as a moderator. This study employs questionnaire online survey method with the goal of collecting enough valid data from targeted Chinese SMEs. The data will be analysed through SEM using AMOS software. The findings attempt to address the research gap and suggest management staff to make full use of the existing business model to benefit the company's practices.

Keywords: Employee engagement · Company performance · Four-box business model · Job demands-resources model · Management control system

1 Introduction

Numerous companies' businesses have been devastated by the pandemic of COVID-19 since early 2020 (Li et al., 2021; Tkach & Kurpayanidi, 2020; French, 2020), with the same situation in China (Sun et al., 2021; Li et al., 2021; Hao et al., 2020; Qin et al., 2020). During this time, the universal working method shifted from office work to a home-stay working approach as part of the social distancing policy.

Companies face enormous pressure in such circumstances because their business growth and development are hampered. This problem is exacerbated in Chinese SMEs

(Sun et al., 2021), as their risk-aversion capacity is lower than that of large corporations. Meanwhile, the employees become increasingly dissatisfied because they are concerned about whether they will receive their payments on time or will lose their jobs due to job insecurity (Jung et al., 2021). Consequently, staff stress and burnout rose, eventually impacting employee engagement and performance (Song et al., 2020). As a result, the existing business model of the company is hampered, which may affect employee engagement and business performance.

Under these conditions, company management must determine whether their business model has normal functions, such as the four-box business model, and how to identify employees' strain levels using a job demands-resources model tool. Simultaneously, company management must understand how to use a management control system to improve employee engagement and reallocate resources effectively and efficiently.

This research's questions are divided into six categories based on the stated issue.

1. Is there a link between employee engagement and company performance?
2. Is there a moderating effect of the four-box business model on the link between employee engagement and company performance?
3. Is there a moderating effect of the customer value proposition on the link between employee engagement and company performance?
4. Is there a moderating effect of key resources on the link between employee engagement and company performance?
5. Is there a moderating effect of key processes on the link between employee engagement and company performance?
6. Is there a moderating effect of the profit formula on the link between employee engagement and company performance?

This study's goal is to investigate six different relationships as a result.

1. What connection exists between company performance and employee engagement?
2. Determine the impact of the four-box business model on the link between employee engagement and company performance.
3. Determine the impact of the customer value proposition on the link between employee engagement and company performance.
4. Determine the impact of key resources on the link between employee engagement and company performance.
5. Determine the impact of key processes on the link between employee engagement and company performance.
6. Determine the impact of the profit formula on the link between employee engagement and company performance.

The model of job demand-resource, which is used to identify employee stress, and the management control system, which is used to help management staff combine functions with resources and rewards, as the theoretical foundation. The primary purpose of the study is to determine whether the business model four-box as well as the contents of each box moderate the link between employee engagement and company performance.

2   Literature Review and Hypotheses Development

2.1   Job Demand-Resource Theory Model

People may encounter a variety of situations and problems on a daily basis. They will, to some extent, cause job strains with varying degrees and consequences. According to Bakker and de Vries (2021), when job strain increases and cannot be managed on time, it progresses to a more severe level known as job burnout, which negatively affects employee engagement and performance. They also state that if people can handle job stress in a flexible way, such as self-regulation, it will be fixed effectively before negative consequences arise. It is critical to understand and find a useful tool to identify the strain level and then apply counter-tacit and method to deal with this problem in a timely manner. The model of job demand-resource (JD-R Model) is a widely recognised instrument for identifying and resolving issues related to stress and employee engagement (Demerouti et al., 2001; Bakker & Demerouti, 2017).

As per Demerouti et al. (2001), the JD-R Model (Job Demand-Resource Model) was created and first applied in 2001. The JD-R Model primarily reflects working conditions, with demand and resource levels varying across four distinct scenarios. The working pressure and motivation of employees vary according to the varying job requirements and available resources. Demands on the job are aspects of the job that reflect emotional efforts made while performing the job. They include both quantitative and qualitative type demands, such as workload and task difficulty (Ng et al., 2008); occupational obstacles and health impairment (Van den Broeck et al., 2010). Livne and Rashkovits (2018) categorise job demands into three types: quantitative, emotional, and mental. Trépanier et al. (2014) incorporate physical demands such as carrying objectives into the content of job demands. According to Rietze and Zacher (2022), time constraints and work interruptions are challenging aspects of job demands. The resources primarily present all positive and supportive aspects of the job to facilitate work completion (Demerouti et al., 2001; Trépanier et al., 2014), such as work-related materials, organisational support, social support, and personal positive resources. Prior to the development of this model of job demand-resource, Taris (1999) stated that job resources included job autonomy, skill utilisation, and variety; Van den Broeck et al. in 2010 added positive feedback, monetary rewards, and occupational growth; and Rietze & Zacher in 2022 added colleague support.

Workers are under increasing strain at work in the COVID-19 situation. We can learn from this job demand-resource model that high demands on the job combined with insufficient resources result in exhaustion and stress. To avoid strain escalating into burnout and disengagement, which eventually have a negative impact on performance, company management should take action promptly and appropriately.

2.2   Management Control System

In a modern company, it is common to mention and use the concept of management control system. Ernest Anthony Lowe or Tony Lowe mentioned the prevalent concept of management control system in his 1971 article "On the Idea of a Management Control System" (Cooper, 2014; Laughlin, 2014; Haslam, 2016). According to Maciariello and Kirby's definition of management control in 1994 (Cifalin & Zoni, 2003), a management

control system is one that integrates all aspects of an organization's information and communicates among different departments to help management coordinate and grow the business.

The management control system is divided into formal and informal categories (Maciariello & Kirby, 1994; cited by Chowdhury & Shil, 2020). The formal type of management control system includes aspects of planning and reporting (Maciariello & Kirby, 1994). For example, an organization's strategic planning is based on its goals, objectives, primary strategies, and capital allocation; its operational planning system aims to coordinate all activities within the organisation in order to meet the organization's future goals and objectives. Meanwhile, Maciariello and Kirby (1994) describe a reporting system that aims to assess the progress of both strategic and operational planning. This section includes the management style, rewards, and control process etc. Individual and group rewards, temporary and permanent rewards, and incentive policies are examples of rewards. Personal contacts, individual networks, innovative character, recognition, performance oriented, trust, conversation, uncertainty coping and dialogue, and so on comprise the informal part of the management control system (Maciariello & Kirby, 1994; Chowdhury & Shil, 2020).

Under COVID-19 conditions, the company's management faces an increasing number of problems and challenges. The management control system has been studied to see if it has an impact on company performance (Bin-Nashwan et al., 2017; Chowdhury & Shil, 2020). To keep the company running smoothly, it is critical to maintain and use formal management control systems such as budget planning and operational planning. At the same time, it is critical and beneficial to use the informal part of the management control system, particularly informal rewards, recognition, uncertainty coping and conversation, and so on, to promote employees and maintain their engagement in this difficult time, which will eventually influence performance.

2.3 Four-Box Business Model

A business model is typically used in the operation and management of a company to connect internal and external activities (Seppänen, 2008; Zott & Amit, 2010). Under COVID-19, the evaluation of corporate resources and activities is critical for expanding a business based on an existing business model, such as the four-box business model, which is suitable for business growth and renewal (Johnson, 2018). This four-box business model consists of a customer value proposition (e.g., a product or service), key resources (e.g., products, talents, and channels), key processes (e.g., manufacturing, sales, and marketing), and a profit formula (e.g., revenue formula, cost structure) (Johnson, 2018).

Because of the damage done to businesses during COVID-19, existing business models have been impacted (Kökény et al., 2022). Many businesses are rethinking and adjusting their business models to include a sustainable component (Di Vaio et al., 2020). The four-box business model's components are interdependently connected and influenced. When these four contents run smoothly and efficiently, the company's business will eventually succeed. It is critical to identify critical business model factors that have a significant impact on company performance (Habjan & Pucihar, 2017).

2.4 Employee Engagement

In recent decades, employee engagement has been regarded as a valuable resource for enhancing a company's competitive advantage (Megha, 2016). For decades, employee engagement has been a popular topic in the research area. However, there is no universal definition of employee engagement. Engagement can manifest as a trait (such as an assertive personality), a psychological state (such as contentment or commitment), or a pattern of behaviour (like personal initiative) (Chanana, 2021; Macey & Schneider, 2008; Schuck & Wollard, 2013).

Employees with a proactive personality, hope, resilience, and self-efficacy personal resources, have lower work stress, higher motivation, and engagement (Bakker & de Vries, 2021). In a mobile workplace, employee engagement improves personal performance (Wang et al., 2021). Then, as a result of improved employee performance, organisational performance improves (Wijayati et al., 2022). The top two predictors of employee engagement are remuneration and performance management (Alam et al., 2022). Employee engagement leads to increased productivity and profit for the company (Chanana, 2021). Employee disengagement has a negative impact on business performance (Heikkeri, 2010). As a result, many businesses focus on increasing employee engagement through training, communication, and compensation etc. (Risley, 2020; De-la-Calle-Durán et al., 2021). More research is required to understand the link between employee engagement and business performance under difficult circumstances like the COVID-19 pandemic. The proposed hypothesis is as follows:

H1: Employee engagement and company performance are positively related.

Many researchers have dedicated many studies in the field of employee engagement over the past decades. The main topics related to employee engagement can be found in the Table 1.

According to Table 1, the amount of employee engagement and company performance has been widely discussed in previous literatures, which primarily focused on studies of different types of supports, as well as some influence factors on employee engagement and performance. However, lack of studies examined the moderating effect of the four-box business model on the link between employee engagement and company performance. Literature review for this study revealed a gap concerning the role of the four-box business model as a moderator in the link between employee engagement and company performance. This is a new hypothesis that is being proposed.

H2: The four-box business model significantly moderates the association between employee engagement and business performance.

Since the four-box business model includes separate boxes, it is necessary to investigate the specific content of each box to determine whether they have a significant moderating effect correspondingly and respectively. So, there are sub-hypotheses proposed as below.

H2a: The customer value proposition significantly moderates the association between employee engagement and company performance.

H2b: The key resources significantly moderate the association between employee engagement and company performance.

H2c: The key processes significantly moderate the association between employee engagement and company performance.

Table 1. Overview previous research on employee engagement

Author	Research area	Relevant variables	Results
Adhitama & Riyanto (2020)	Finance	Social union, superior feeling, share of information, shared goals and perspective, trust, communication, employee engagement, employee performance	Found that the mentioned factors can both affected employee engagement and employee performance.
Ahmed at el. (2020)	Education industry	employee engagement, company performance, knowledge sharing	Knowledge sharing and employee engagement significantly and favourably affect business performance. Knowledge sharing only has part of mediating effect on the link between employee engagement and corporate performance.
Mani & Mishra (2020)	various industries	growth, renewal, enabling, aspirational, transparency, employee motivation, employee engagement	Found that the levers of growth, renewal, enabling, aspirational, transparency can increase employee morale and motivation then increase employee engagement.
De-la-Calle-Durán & Rodríguez-Sánchez (2021)	various industries	conciliation, cultivation, confidence, compensation, communication, employee engagement and wellbeing	Found some feasible ways to keep employee engagement and wellbeing during tough time
NGUYEN & TRAN (2021)	various industries	spouse support, perceived family support, support from family members, perceived organisational support, supervisor support, colleague support, employee engagement	The results show that these kinds of supports promote employee engagement.

(*continued*)

Table 1. (*continued*)

| Author	Research area	Relevant variables	Results
Tao et al. (2022)	various industries	Control coping, escape coping, organisational engagement, language that provides direction, language that shows empathy, language that conveys meaning, and the satisfaction of one's needs for autonomy, relatedness, and competence.	The most significant psychological factors influencing the effects of leaders' empathic and direction-giving language on organisational engagement are needs satisfaction and control coping.

Conceptual Model
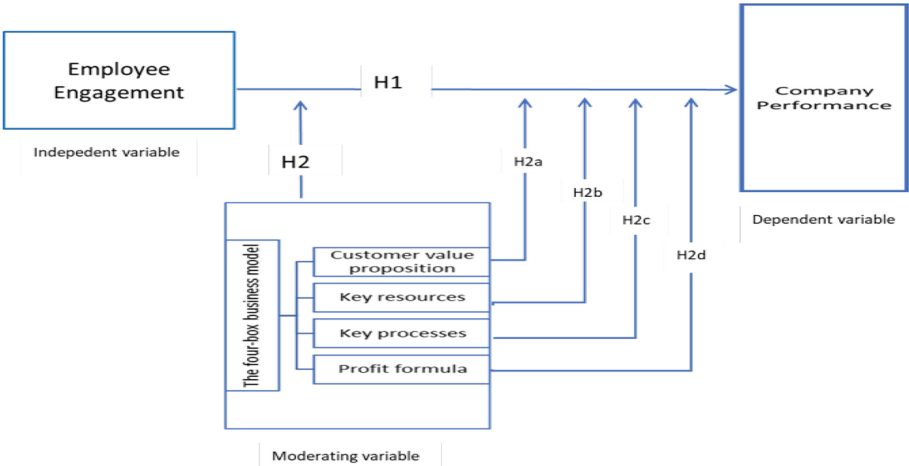
Fig. 1. Research Model

H2d: The profit formula significantly moderates the association between employee engagement and company performance.

2.5   Conceptual Model

According to the conceptual model, the independent variable is employee engagement; company performance as the dependent variable; the moderating variables are the four-box business model and each box's content (Fig. 1).

3 Methodology

3.1 Research Approach

This study employs the descriptive method, which is appropriate for describing the relationships between variables (Dulock, 1993). Following a review of related literature, six proposed hypotheses will be identified under relevant theories. The quantitative data collection is by an online survey with a structural questionnaire. Finally, the research results were compared to the hypotheses.

3.2 Data Collection

Because of the COVID-19 pandemic, it is preferable to keep people apart. The online survey method is appropriate because it is a cost-effective, quick, and convenient way of collecting data via email (Hunter, 2012). The structured research survey questionnaire form employs a 1–5 point Likert scale on which 1 stands for "strongly disagree," while 5 stands for "strongly agree."

3.3 Sampling Frame

This study's target population is the management of Chinese SMEs, such as the owner, general manager, or department manager. These SMEs are concentrated in China's Guangdong, Jiangsu, and Shandong provinces. According to GDP reports from 2019 to the first quarter of 2021 (Financial Channel, 2019 & 2020 & 2021), the GDP of these three provinces ranks first to third. Meanwhile, these SMEs are active in a variety of industries. To select samples at random, this study employs a simple random sampling method.

3.4 Sample Size

To determine sample size, this study refers to the published Morgan's table (Krejcie & Morgan, 1970) and takes model complexity into account (Hair et al., 2010). Thus, approximately 150 samples will be used for the analysis of this study.

3.5 Questionnaire Design

The structural questionnaire mainly includes three sections: independent variables, moderating variables, and dependent variables. With 9 items, employee engagement was used as an independent variable (Quantumworkplace, 2021). As moderating variables, customer value proposition with 6 items (Zhao et al., 2013), key resources with 4 items (Ryan, 2013), key processes with 3 items (Ryan, 2013), profit formula with 12 items (Zhao et al., 2013). The four-box business model's measurement is based on the average score of the four boxes' total content. With 5 items, the company performance is the dependent variable (Nguyen et al., 2021).

3.6 Data Analysis Tool

After completing data collection, all data were checked for completeness. The data is then coded and entered into a computer. In this study, SPSS and AMOS software were used for the analysis of structural equation modelling (Reinartz et al., 2009).

4 Data Analysis and Results

There were 700 questionnaires sent to the target companies. Receiving 110 responses (response rate is about 15%). After checking and screening the collected data, there are approximately 77 qualified data for analysis. The following paragraphs interpret the analysis results.

Confirmatory Factor Analysis was computed using AMOS vesion26 to assess the measurement model. Each item's factor loading was assessed as part of the analysis of confirmatory factors, and some items were removed due to low factor loadings (most of them < 0.50). To assess the overall goodness of fit of a model, the model-fit measures (CMIN/df, GFI, CFI, TLI, SRMR, and RMSEA) were calculated (Ullman, 2001; Hu and Bentler, 1998; Bentler, 1990). CMIN/df = 1.923, GFI = 0.73, TLI = 0.852, CFI = 0.879, RMSEA = 0.11 and SRMR = 0.065 were data values from the first order model (with factors of customer value proposition, profit formula, key resources, key procedures, employee engagement, and company performance). CMIN/df = 1.998, GFI = 0.704, TLI = 0.84, CFI = 0.862, RMSEA = 0.115, and SRMR = 0.072 were the values for data in the second order model (added factor of four-box business model). Some of the values meet the minimum requirements, but others do not.

To evaluate construct reliability, Cronbach's Alpha and Composite Reliability (CR) were calculated. In the first order model, all of Cronbach's Alpha values in this research for each construct were greater than 0.70, with the exception of key procedures, which were greater than 0.6 (Nunnally and Bernstein, 1994). Except for CR 0.672 for key procedures, composite reliability values are between 0.817 and 0.918, well above the 0.70 benchmark (Hair et al., 2010). Except for the construct of key procedures, almost all construct reliability was well established in this study (Table 2). In the second order model, all values of Cronbach's Alpha were over 0.7, between 0.812 and 0.955; all Composite Reliability values were greater than 0.7, ranging from 0.815 to 0.926 (Table 3). As a result, construct reliability was quite high in this study.

To assess the convergent validity of indicators, average variance extracted (AVE) was calculated (Fornell & Larcker, 1981). All of the average variance-extracted values in both the first and second order models exceed 0.50 for all constructs. As a result, the scales used in this study have the necessary convergent validity (Tables 2 and 3).

The Heterotrait-Monotrait (HTMT) ratio and the Fornell & Larcker criterion were used to evaluate discriminant validity in this study. As per the Fornell & Larcker criterion, when a construct's square root of AVE exceeds its correlation with the other constructs, then discriminant validity has been established well in the research. Nonetheless, there are many criticisms of Fornell and Larcker criterion. It is quite popular to use the HTMT ratio to evaluate discriminant validity, which is becoming more and more popular with a threshold of 0.9 (Henseler et al., 2015). Discriminant validity in this research has not been completely constructed by both the Fornell & Larcker criterion and the HTMT

Table 2. Factor Loadings, Reliability, and Convergent Validity in first order constructs

Item	Factor loading	Cronbach's Alpha	CR	AVE	Item	Factor loading	Cronbach's Alpha	CR	AVE
Customer Value Proposition		0.853	0.860	0.61	**Key Procedures**		0.661	0.672	0.509
CVP5	0.883				KP1	0.637			
CVP4	0.846				KP3	0.782			
CVP2	0.666				**Employee Engagement**		1.087	0.817	0.604
CVP1	0.707				EE1	0.79			
Profit Formula		0.912	0.918	0.653	EE5	0.623			
PF7	0.78				EE9	0.894			
PF6	0.854				**Company Performance**		0.814	0.818	0.602
PF5	0.804				CP4	0.713			
PF4	0.853				CP3	0.726			
PF3	0.703				CP1	0.878			
PF2	0.844								
Key Resources		0.837	0.839	0.723					
KR3	0.874								
KR4	0.826								

Table 3. Factor Loadings, Reliability, and Convergent Validity in second order constructs

Item	Factor loading	Cronbach's Alpha	CR	AVE	Item	Factor loading	Cronbach's Alpha	CR	AVE
Four-box Business Model		0.955	0.967	0.88	**Employee Engagement**		0.812	0.87	0.696
CVP	0.984				EE9	0.98			
PF	0.911				EE5	0.638			
KR	0.988				EE1	0.849			
KP	0.864				**Company Performance**		0.814	0.896	0.744
					CP4	0.794			
					CP3	0.804			
					CP1	0.978			

Table 4. As per HTMT Ratio in first order model

	CP	EE	KP	KR	PF
EE	0.80				
KP	0.80	0.61			
KR	0.71	0.87	0.44		
PF	0.82	0.88	0.63	0.68	
CVP	0.93	0.97	0.64	0.95	0.89

Table 5. As per HTMT Ratio in second order model

	BM	EE
EE	0.95	
CP	0.90	0.81

ratio in the first and second order models. However, when the HTMT ratio was used, the number of excessive limit values 0.9 was much lower than the Fornell and Larcker criterion and much better (Tables 4 and 5). Discriminant validity has been established to a limited extent between constructs.

A structural equation model was constructed in AMOS software to evaluate the constructs' relationships. A model is considered good-fitting if the CMIN/df value is less than 5, the indexes of GFI (goodness-of-fit), TLI (Tucker and Lewis, 1973), and CFI (comparative fit index; Bentler, 1990) exceed 0.90 (Hair et al., 2010). Furthermore, if the values of RMSEA (root mean square error approximation) and SRMR (standardised root mean square residual) are less than 0.08, it is acceptable (Hair et al., 2010). CMIN/df $= 2.934$, GFI $= 0.869$, TLI $= 0.862$, CFI $= 0.901$, RMSEA $= 0.16$, and SRMR $= 0.075$ are the model fit indices.

The squared multiple correlations for company performance was 0.717, indicating that employee engagement and four-box business model along with its each box content explain 71.7% of the variance in company performance.

The impact of employee engagement, moderated by the four-box business model and each box's content, on company performance was investigated in this study. Employee engagement positively and significantly impacts company performance ($b = 0.918$, $t = 4.516$, $p < 0.001$), indicating that hypothesis H1 was supported. The moderating effect of the four-box business model was negative and insignificant ($b = -0.117$, $t = -1.127$, $p = 0.26$), so that hypothesis H2 can't be supported. The customer value proposition had a significant and negative moderating effect ($b = -0.22$, $t = -2.71$, $p = 0.007$), which backs up hypothesis H2a. Profit formula had an insignificant and negative moderating effect ($b = -0.055$, $t = -0.64$, $p = 0.522$), indicating that hypothesis H2b was not supported. Key resources negatively and significantly moderated the relationship between employee engagement and company performance ($b = -0.228$, $t = -2.328$, $p = 0.02$), supporting hypothesis H2c. Hypothesis H2d can't be supported as key processes had

a negative and insignificant moderating effect on employee engagement and company performance (b = −0.095, t = −1.099, p = 0.272).

5   Conclusions and Implications

The results of this study demonstrated the importance of employee engagement and the moderating effect of the four-box business model on company performance.

According to the above analysis, employee engagement positively and significantly impacts company performance. Employee engagement could explain approximately 70% of the change in performance. Company management could pay more attention and focus on employees, especially during this difficult time (e.g., COVID-19 period), to learn about employee statuses such as stress, difficulty in work and life, or depression, and so on. Management could utilise the model of job demand-resource to assess the level of status, allowing them to implement different and appropriate policies to release and resolve the problem before it worsens. Employees who can adjust well over time will not have a negative impact on the work.

Company management could apply job demand- resource model along with the management control system at the same time. As it is also essential to address employee issues and incentivize employees after problem identification. Management control system includes many aspects contents; they can be used in different situations such as incentive, reward with tangible and intangible contents, resources distribution or conversation if needed, and so on. Company benefits when employee engagement is improved and enhanced. Company management can use business models such as the four-box business model to clearly know and easily identify a company's kinds of resources, operations, distribution, and so on in normal time. Although the analysis results show that the four-box business model did not significantly moderate the relationship between employee engagement and company performance, this four-box business model had a significant direct influence on company performance(b = 0.882, t = 3.099, p = 0.002). In the meantime, customer value proposition-one box content (b = −0.22, t = −2.71, p = 0.007) and key resources-another box content (b = −0.228, t = −2.328, p = 0.02) of the four-box business model had shown that they significantly moderated the link between employee engagement and company performance. This closes the literature gap in a lack of research that investigated the link between employee engagement and company performance using the four-box business model as a moderator.

6   Limitation

There are some limitations to this study. For example, after improving model fit for two constructs, there are only two indicators left for further analysis. The indicator number is less than three, indicating a negative impact during analysis. Another limitation is that the number of analysis data is limited, which has an impact on whether the analysis outputs meet the required values. The next limitation is that data collection takes much longer because the target population is companies rather than individuals, so it is unclear who will respond to the survey. The final limitation is that this study only looks at small and medium-sized businesses. Future research may be able to broaden the scales and overcome the limitations.

References

Adhitama, J., & Riyanto, S. (2020). Maintaining Employee Engagement and Employee Performance during Covid-19 Pandemic at PT. Koexim Mandiri Finance. JoUrnal of Research in Bussiness and Management, 8(3).

Ahmed, T., Khan, M. S., Thitivesa, D., Siraphatthada, Y., & Phumdara, T. (2020). Impact of employees engagement and knowledge sharing on organizational performance: Study of HR challenges in COVID-19 pandemic. Human Systems Management, 39(4), 589–601.

Alam, J., Mendelson, M., Boamah, M. I., & Gauthier, M. (2022). Exploring the antecedents of employee engagement. International Journal of Organizational Analysis.

Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: taking stock and looking forward. Journal of occupational health psychology, 22(3), 273.

Bakker, A. B., & de Vries, J. D. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. Anxiety, Stress, & Coping, 34(1), 1–21.

Bin-Nashwan, S. A., Abdullah, N. S., & Obaid, M. M. (2017). A Review of Literature in Management Control System (MCS), Business Strategy, and Firm's Performance. International Journal of Management Research and Reviews, 7(2), 99.

Chanana, N. (2021). Employee engagement practices during COVID-19 lockdown. Journal of public affairs, 21(4), e2508.

Chowdhury, A., & Shil, N. C. (2020). Conceptualising management control systems. Illustrative evidence from literature on the Australian business sector. Vezetéstudomány-Budapest Management Review, 51(11), 51–63.

Cifalinò, A., & Zoni, L. (2003). Management Control Transformation: Perspectives from the Information Economy. Università Cattolica del Sacro Cuore.

Cooper, D. J. (2014). On the intellectual roots of critical accounting: A personal appreciation of Tony Lowe (1928–2014). Critical Perspectives on Accounting, 25(4-5), 287–292.

De-la-Calle-Durán, M. C., & Rodríguez-Sánchez, J. L. (2021). Employee engagement and wellbeing in times of COVID-19: a proposal of the 5Cs model. International Journal of Environmental Research and Public Health, 18(10), 5470.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. Journal of Applied psychology, 86(3), 499.

Di Vaio, A., Boccia, F., Landriani, L., & Palladino, R. (2020). Artificial intelligence in the agri-food system: Rethinking sustainable business models in the COVID-19 scenario. Sustainability, 12(12), 4851.

Dulock, H. L. (1993). Research Design: Descriptive Research. Journal of Pediatric Oncology Nursing, 10(4), 154–157. https://doi.org/10.1177/104345429301000406.

Financial Channel. (2020, Jan. 24 & 2021, Jan. 30 & 2021, Apr. 28). GDP of 31 Provinces in 2019 & 2020 & first quarter of 2021. CHINANEWS. http://www.chinanews.com/cj/2020/01-24/9068576.shtml; http://www.chinanews.com/cj/2021/01-30/9400173.shtml; http://www.chinanews.com/cj/2021/04-28/9466104.shtml. (In Chinese)

French, C. C. (2020). Covid-19 business interruption insurance losses: The cases for and against coverage. Conn. Ins. LJ, 27, 1.

Hao, F., Xiao, Q., & Chon, K. (2020). COVID-19 and China's hotel industry: Impacts, a disaster management framework, and post-pandemic agenda. International journal of hospitality management, 90, 102636.

Haslam, J. (2016). Informings for Control and Emancipatory Interests in Accounting: New Reflections on the Intellectual Emancipation of Accounting and the Possibilities of Emancipatory Accountings. In Pioneers of Critical Accounting (pp. 143–161). Palgrave Macmillan, London.

Heikkeri, E. (2010). Roots and consequences of the employee disengagement phenomenon.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the academy of marketing science, 43(1), 115–135.

Hunter, L. (2012). Challenging the reported disadvantages of e-questionnaires and addressing methodological issues of online data collection. Nurse researcher, 20(1).

Jung, H. S., Jung, Y. S., & Yoon, H. H. (2021). COVID-19: The effects of job insecurity on the job engagement and turnover intent of deluxe hotel employees and the moderating role of generational characteristics. International Journal of Hospitality Management, 92, 102703.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. https://home.kku.ac.th/sompong/guest_speaker/KrejcieandMorgan_article.pdf.

Kökény, L., Kenesei, Z., & Neszveda, G. (2022). Impact of COVID-19 on different business models of European airlines. Current Issues in Tourism, 25(3), 458–474.

Laughlin, R. (2014). Tony Lowe and the Interdisciplinary and Critical Perspectives on Accounting Project: Reflections on the contributions of a unique scholar. Accounting, Auditing & Accountability Journal.

Li, B., Zhong, Y., Zhang, T., & Hua, N. (2021). Transcending the COVID-19 crisis: Business resilience and innovation of the restaurant industry in China. Journal of Hospitality and Tourism Management, 49, 44–53.

Livne, Y., & Rashkovits, S. (2018). Psychological empowerment and burnout: Different patterns of relationship with three types of job demands. International Journal of stress management, 25(1), 96.

Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. Industrial and organizational Psychology, 1(1), 3–30.

Mani, S., & Mishra, M. (2020). Non-monetary levers to enhance employee engagement in organizations–"GREAT" model of motivation during the Covid-19 crisis. Strategic HR Review.

Megha, S. (2016). A BRIEF REVIEW OF EMPLOYEE ENGAGEMENT: DEFINITION, ANTECEDENTS AND APPROACHES. CLEAR International Journal of Research in Commerce & Management, 7(6).

Ng, K. Y., Ang, S., & Chan, K. Y. (2008). Personality and leader effectiveness: a moderated mediation model of leadership self-efficacy, job demands, and job autonomy. Journal of Applied psychology, 93(4), 733.

NGUYEN, H. N., & TRAN, M. D. (2021). The effect of perceived organizational support on employee engagement during the COVID-19 pandemic: an empirical study in Vietnam. The Journal of Asian Finance, Economics and Business, 8(6), 415–426.

Nguyen, P. V., Huynh, H. T. N., Lam, L. N. H., Le, T. B., & Nguyen, N. H. X. (2021). The impact of entrepreneurial leadership on SMEs' performance: The mediating effects of organizational factors. Heliyon, e07326.

Qin, M., Liu, X., & Zhou, X. (2020). COVID-19 shock and global value chains: Is there a substitute for China?. Emerging Markets Finance and Trade, 56(15), 3588-3598.

Quantumworkplace, (2021). 2020 Employee Engagement Trends Report. How America's Best Places to Work Engage & Retain Top Talent. https://marketing.quantumworkplace.com/hubfs/Marketing/Website/Resources/PDFs/QW-2020-Employee-Engagement-Trends-Report.pdf.

Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. International Journal of research in Marketing, 26(4), 332–344.

Rietze, S., & Zacher, H. (2022). Relationships between Agile Work Practices and Occupational Well-Being: The Role of Job Demands and Resources. International Journal of Environmental Research and Public Health, 19(3), 1258.

Risley, C. (2020). Maintaining performance and employee engagement during the COVID-19 pandemic. Journal of Library Administration, 60(6), 653–659.

Ryan, L. (2013). Facilitating the transition from product-orientated to product service systems.

Schuck, M. B., & Wollard, K. K. (2013). A historical perspective of employee engagement: An emerging definition.

Song, L., Wang, Y., Li, Z., Yang, Y., & Li, H. (2020). Mental health and work attitudes among people resuming work during the COVID-19 pandemic: a cross-sectional study in China. International journal of environmental research and public health, 17(14), 5059.

Sun, T., Zhang, W. W., Dinca, M. S., & Raza, M. (2021). Determining the impact of Covid-19 on the business norms and performance of SMEs in China. Economic Research-Ekonomska Istraživanja, 1–20.

Taris, T. W. (1999). The mutual effects between job resources and mental health: a prospective study among Dutch youth. Genetic, social, and general psychology monographs, 125(4), 433–433.

Tao, W., Lee, Y., Sun, R., Li, J. Y., & He, M. (2022). Enhancing Employee Engagement via Leaders' Motivational Language in times of crisis: Perspectives from the COVID-19 outbreak. Public Relations Review, 48(1), 102133.

Tkach, D. V. Y., & Kurpayanidi, K. I. (2020). SOME QUESTIONS ABOUT THE IMPACT OF THE COVID-19 PANDEMIC ON THE DEVELOPMENT OF BUSINESS ENTITIES. Theoretical & Applied Science, (11), 1–4.

Trépanier, S. G., Fernet, C., Austin, S., Forest, J., & Vallerand, R. J. (2014). Linking job demands and resources to burnout and work engagement: Does passion underlie these differential relationships?. Motivation and Emotion, 38(3), 353–366.

Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands–Resources model. European journal of work and organizational psychology, 19(6), 735–759.

Wang, X., Zhang, Z., & Chun, D. (2021). How does mobile workplace stress affect employee innovative behavior? The role of work–family conflict and employee engagement. Behavioral Sciences, 12(1), 2.

Wijayati, D. T., Rahman, Z., Rahman, M. F. W., Arifah, I. D. C., & Kautsar, A. (2022). A study of artificial intelligence on employee performance and work engagement: the moderating role of change leadership. International Journal of Manpower.

Zhao, L., Huo, B., Sun, L., & Zhao, X. (2013). The impact of supply chain risk on supply chain integration and company performance: a global investigation. Supply Chain Management: An International Journal.