







# “Determinants influencing productivity in unicorn startups: Roles of new ways of working and work engagement”

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<b>ARTICLE INFO</b>	Jefta Harlianto, Harjanto Prabowo, Rano Kartono Rahim and Nugroho J. Setiadi (2024). Determinants influencing productivity in unicorn startups: Roles of new ways of working and work engagement. <i>Problems and Perspectives in Management</i> , 22(3), 225-240. doi: <a href="https://doi.org/10.21511/ppm.22(3).2024.18">10.21511/ppm.22(3).2024.18</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/ppm.22(3).2024.18">http://dx.doi.org/10.21511/ppm.22(3).2024.18</a>
<b>RELEASED ON</b>	Monday, 29 July 2024
<b>RECEIVED ON</b>	Friday, 19 April 2024
<b>ACCEPTED ON</b>	Thursday, 18 July 2024
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<b>JOURNAL</b>	"Problems and Perspectives in Management"
<b>ISSN PRINT</b>	1727-7051
<b>ISSN ONLINE</b>	1810-5467
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

**46**



NUMBER OF FIGURES

**3**



NUMBER OF TABLES

**12**

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## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 19<sup>th</sup> of April, 2024

**Accepted on:** 18<sup>th</sup> of July, 2024

**Published on:** 29<sup>th</sup> of July, 2024

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**Conflict of interest statement:**

Author(s) reported no conflict of interest

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# DETERMINANTS INFLUENCING PRODUCTIVITY IN UNICORN STARTUPS: ROLES OF NEW WAYS OF WORKING AND WORK ENGAGEMENT

## Abstract

Despite its growth, Indonesia's startup industry struggles with high failure rates; this industry relies on employee productivity and promoting new work methods that reshape modern workplaces. The study aims to examine the impact of new ways of working on employee productivity and work engagement in Indonesian unicorn startups post-pandemic while also observing the current situation using importance-performance analysis. The data analysis uses structural equation modeling (SEM) with partial least squares (PLS) and Smart-PLS software. This study analyzes survey data from 56 leaders of Indonesian unicorn startups. It delves into the complex relationships between these variables based on the leaders' perspectives. According to the findings, new ways of working impact employee productivity ( $\beta = 0.521$ ;  $p$ -value  $< 0.05$ ), new ways of working impact work engagement ( $\beta = 0.856$ ;  $p$ -value  $< 0.05$ ), work engagement impact employee productivity ( $\beta = 0.379$ ;  $p$ -value  $< 0.05$ ), and new ways of working impact employee productivity through work engagement ( $\beta = 0.325$ ;  $p$ -value  $< 0.05$ ). The findings indicate that new ways of working significantly affect work engagement and productivity. It also identifies work engagement as a key driver of employee productivity. Interestingly, the effect of new ways of working on employee performance is also mediated by work engagement, highlighting the relationship between these factors.

## Keywords

unicorn startups, leaders' perspectives, post-pandemic,  
Indonesia, SEM, importance-performance analysis

## JEL Classification

J24, L25, M13, O15

## INTRODUCTION

Startups have become increasingly essential in the global economy in recent years. Indonesia is a rapidly digitizing country that provides insightful information about the potential success of startups. Despite being a relatively new player, Indonesia has quickly risen in the ranks and established itself as a key hub for entrepreneurial ventures. Jakarta's remarkable ascent to the 29<sup>th</sup> position on the global scale has brought international attention to Indonesia's startup landscape. As of January 11, 2024, the country boasts a staggering 2,562 startups, reaffirming its status as a powerhouse. Indonesia's startup ecosystem is leading Southeast Asia, ranking second in Asia and securing the sixth position globally (StartupRanking, 2023).

Startup failure rates remain worryingly high, with up to 90% of startups failing at some point in their journey, while the average failure rate within the first year is around 10% across industries (Howarth, 2023). In Indonesia, the startup landscape mirrors global trends, with a significant number of ventures facing challenges in their early stages. President Jokowi's statement further underscores this reality, reveal-

ing that a staggering 80% to 90% of startups in Indonesia fail during their inception phase (Kominfo, 2022). In 2023, Indonesian startups struggled with layoffs, highlighting the industry's volatility. While in 2024, Indonesia's startup is expected to face the risk of innovation stagnation and potential market shrinkage. Effective financial management is also a major concern for many startups, constraining their ability to raise the capital required for ongoing operations and expansion plans (Bortolini et al., 2018). Strong firm performance is a cornerstone of organizational success, influenced by many factors. In this fast-paced environment, company success depends heavily on employee productivity. Observing the connection between firm performance and employee productivity shall show the interactions between a company's success and the importance of its employees. Understanding the factors that affect employee performance in the early stages is essential to improving organizational performance and reducing startup failure.

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## 1. LITERATURE REVIEW

Startups are defined as the new market reality formed by the digital, social, and economic revolutions that resulted in the rise of new, distinct forms of organization and innovations to produce fundamentally new products that address specific demands (Skala, 2019; Awaya & Krishna, 2021). The sustainability of startups is influenced by many variables related to the entrepreneur's motivation as well as the broader conditions of the entrepreneurial ecosystem. These actors' activities and interconnections determine the route and longevity of startup businesses (Ziakis et al., 2022). Startups also act as catalysts for new business models in the new work framework, which is increasingly emphasizing meaningful work methods. This provides valuable insights for established companies to adopt new strategies that make fulfillment a priority (Afflerbach, 2016).

The model of new ways of working incorporates a range of non-traditional work methods, often enabled by information and communication technologies. The digital workplace provides more effective ways of working, improves productivity, and increases employee engagement (Attaran et al., 2019). The model of new ways of working indicates offering employees the freedom to choose when and where they want to work, whether it is inside or outside the office. It also intends to discover new methods of work that allow for significant flexibility and autonomy. It underlines the delivery of work in terms of location and time. Its central objective is to offer flexibility in working implementation. There are specified circumstances that need to be established, such as the specific areas where knowledge workers work, the wide use

of information and communication technology, and the empowerment of employees to take control of their jobs (Renard et al., 2021). New ways of working refer to a practice that enables workers to work at any location and time, assisted by technology and flexible working conditions. This grants employees more autonomy and freedom through location and time-independent work, management of output, access to organizational knowledge, flexibility in working relationships, and a freely accessible open workplace (Andrulli & Gerards, 2023).

Employee productivity refers to the efficient completion of tasks that contribute to a company's financial success. Productivity refers to the result of an individual's or company's procedures (Abioro et al., 2018). One defined employee productivity as the evaluation of the worker's internal efficiency and the efficacy of outcomes from the customer's perspective. The efficiency of a worker is his ability to perform job activities effectively, reflecting employee skills and teamwork. The effectiveness of the outcomes is measured by the extent to which goals are achieved, high-quality job outputs are produced, and customer satisfaction is ensured (Palvalin et al., 2013; Palvalin et al., 2015). New ways of working have also been found to be contributing factors to improving employee productivity in organizations. New ways of working, such as remote work and activity-based work, have different influences on employee productivity. The evolution toward flexible working, demonstrated in the new way of working trend, is shifting the traditional work environments, giving knowledge workers greater autonomy in decisions about when, where, and how to complete their work (Renard et al., 2021).

New ways of working impact employee productivity. Flexibility, in location and time during work, and high-performance expectations are positively and strongly connected (Cornu, 2022). Remote work can enhance productivity with flexible schedules, while communication and collaboration are crucial for successful remote work. At the same time, remote work challenges such as isolation and distractions can affect performance (Mazur & Chukhrai, 2023). Activity-based work influences employee productivity to a certain degree; meanwhile, distraction elements have a negative influence on employee performance (Wadu Mesthrige & Chiang, 2019). Flexible work arrangements can encourage employee productivity, a recognized result of employee engagement (Weideman & Hofmeyr, 2020). Better workforce engagement could enhance team performance in organizational settings (Uddin et al., 2019). However, respondents believed that their performance dipped and was negatively impacted during the forced telework time (Giauque et al., 2022). Still, flexible work does not necessarily increase productivity and work satisfaction (Jackson & Fransman, 2018). The remote working environment has positive and also negative sides. Productivity can decline due to struggles with remote teams (Atti et al., 2022).

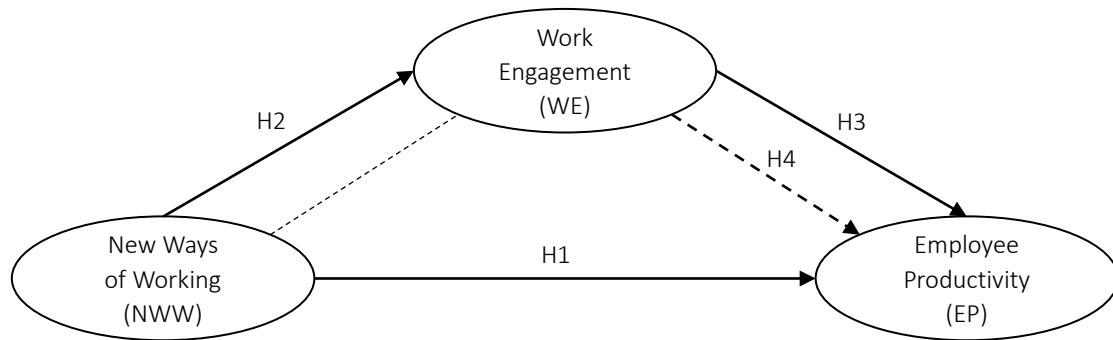
Work engagement is characterized by vigor, dedication, and absorption. Vigor is characterized by high levels of energy and mental resilience while working. Dedication refers to being strongly involved in work and experiencing a sense of significant enthusiasm. Absorption is characterized by being fully engaged and immersed in work to the point of losing track of time and surroundings (Schaufeli et al., 2002; Bakker & Demerouti, 2008). Engaged employees work with enthusiasm, are involved, and feel happily engrossed in work (Bakker & Demerouti, 2008).

Many articles have shown interest in examining the relationship between new ways of working and work engagement. New ways of working purpose to increase work engagement by offering flexible workstations, positively affecting employee engagement within virtualizing companies (Kingma, 2019). New ways of working also act as a strong determinant of work engagement (Duque et al., 2020). It may positively impact work engagement among workers (Andrulli & Gerards, 2023;

Gerards et al., 2018; Weideman & Hofmeyr, 2020). In the meantime, new ways of working can have positive influences on work engagement, work-related flow, and relationships among workers in an organization. It can also have negative influences, such as exhaustion, blurred work-home limitations, and boosted mental demands (Kotera & Vione, 2020).

Work engagement plays a mediating role between time-spatial job crafting and job performance (Lazauskaite-Zabielske et al., 2021). Higher levels of work engagement could lead to an increment of productivity among workers in organizations (Abdelwahed & Dohan, 2023). Better employee engagement might improve team performance in organizational contexts (Uddin et al., 2019). Another finding also displayed that both work engagement and flexible human resource management influenced work performance (Sekhar et al., 2018). Work engagement partially facilitated the relationship between meaningfulness and in-role performance of employees (Han et al., 2021). Work engagement also predicted supervisor-rated extra-role performance via short-term attitude-to-change (van den Heuvel et al., 2020). Encouraging job engagement through multiple strategies can significantly expand employee productivity, ultimately improving organizational performance.

Several studies have shown interest in examining the relationship between new ways of working and work engagement on employee productivity. New ways of working significantly influence worker productivity through work engagement. Work engagement, which involves emotional involvement and dedication to work, has been discovered to positively influence productivity in various organizational settings (Abdulrahman et al., 2022). Literature also confirmed that work engagement plays a fundamental role in improving employee productivity (Gerards et al., 2018; Andrulli & Gerards, 2023; Weideman & Hofmeyr, 2020). Numerous studies have explored employee engagement as a mediator in human resources practices and performance relationships. New ways of working can become a fundamental strategy for sustaining work engagement and job performance (Lazauskaite-Zabielske et al., 2021; Sekhar et al., 2018).



**Figure 1.** Conceptual framework

Despite the increasing popularity of new work practices, there remains a significant gap in research focusing specifically on leadership perspectives. It is critical to investigate the new ways of working to tackle the challenges faced by leaders in mitigating human resource problems and financial demands during rapid technological shifts and the impact of the pandemic (Pogan, 2022). It also shifts leadership toward goal setting, trust, and a mix of styles like vision-based leading and output control, adapting to activity-based and home-based work behaviors (De Leede & Heuver, 2016). Managers in new ways of working face balancing control and trust challenges. Electronic monitoring can harm trust, but acceptance can lead to productive relationships and mutual trust (Romeike et al., 2016). Given the uncertainties surrounding post-pandemic employee behavior, conducting comprehensive research on workplace practices that encompass a wide range of human resources outcomes and interactional variables becomes paramount (Renard et al., 2021). Previous studies have primarily focused on non-Asia countries, so it is imperative to include Asia as a focal point for observation. It is necessary to consider the interaction of outcomes and variables, especially in Asia, where previous studies have paid less attention.

Therefore, the aim of this study is to investigate the impact of new ways of working on work engagement and employee productivity from leaders' perspectives of Indonesian startup unicorns in the post-pandemic period through a complete understanding of the interrelations among the variables (Figure 1). The hypotheses proposed are as follows:

*H1: New ways of working significantly affect employee productivity.*

*H2: New ways of working significantly affect work engagement.*

*H3: Work engagement significantly affects employee productivity.*

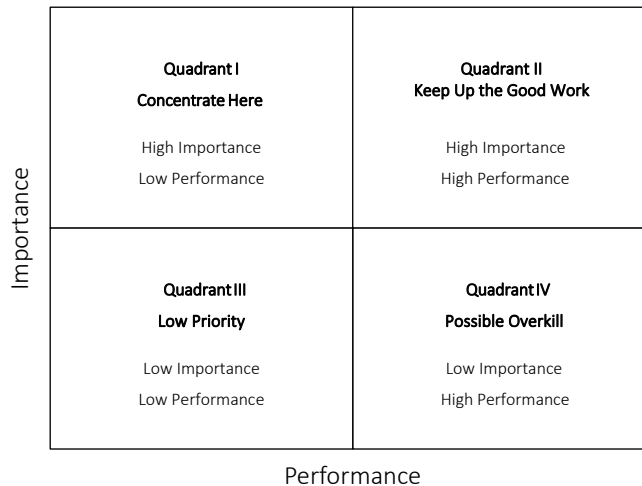
*H4: New ways of working significantly affect employee productivity through work engagement.*

## 2. METHODS

This paper implemented a quantitative method using primary data collection methods and field surveys. This explores the causal and consequential relationships among the variables by using an exploratory design. It uses an interpretive, analytical approach to uncover the causal factors behind the findings. A cross-sectional sampling method is used to capture data to provide a snapshot of the current state of the variables. The study sample consists of leaders of 15 unicorn startups based in Indonesia who have worked in the company for at least one year. A simple random sampling was conducted to select the respondents. The study received 56 questionnaires (check Appendix A) from leaders in all job fields, ages, and genders.

Descriptive statistical analysis employs importance-performance analysis. This descriptive approach investigates the correlation between an individual's perceived importance of specific attributes and the actual performance of the attributes. The resulting graph is segmented into four quadrants, delineated in the importance-performance analysis (IPA) quadrant by Martilla and James (1977). The Y-axis reflects the importance level attributed by leaders to the specified attri-





**Figure 2.** Importance-performance analysis

butes, while the X-axis indicates leaders' opinions regarding the suitability of employee conditions for those attributes. During the survey, respondents were encouraged to assess the importance and performance of characteristics. The findings were then classified into four quadrants, as shown in Figure 2.

This study applies the multivariate structural equation modeling with partial least squares (SEM-PLS) method to assess the research hypotheses, which involves examining the linear causal models that demonstrate the relationships between the variables. It involves specifying a measurement model to comprehend how observed variables represent latent constructs. It analyzes hypotheses about relationships between these constructs using path models. Model fit is evaluated using  $R^2$  and predictive relevance. Explanation requires examining path coefficients to determine the strength and significance of relationships among variables.

New ways of working were assessed using measurements from Andrulli and Gerards (2023). They consist of 16 items categorized into six sub-constructs. Work engagement employed the scale from Schaufeli et al. (2002), comprising 17 items in three sub-constructs. Employee productivity was evaluated using the measurements from Palvalin et al. (2015), with eight items distributed across two sub-constructs. The items were rated using a five-point Likert scale. Two measures were employed to assess the experience: to determine

the level of importance and to evaluate suitability with the current conditions.

The analysis starts with the demographic characteristics, including gender, age, job field, and length of employment in Indonesian unicorn startups. A total of 56 valid responses were considered in the analysis. The demographic results show that in the age category, 46 were aged 24-42 years old (82%); 33 were female (59%); 28 were leaders from marketing (25%) and information technology positions (25%), and 27 have tenure of 1-3 years (48%). Table 1 shows the detailed results of respondents' demographics.

**Table 1.** Respondents' demographics

Demographic	Categories	Total	%
Gender	Male	23	41%
	Female	33	59%
Age	17-23 years old	3	5%
	24-42 years old	46	82%
	43-59 years old	7	13%
Job field	Finance	7	13%
	Human Resources	9	16%
	Information Technology (IT)	14	25%
	Marketing	14	25%
	Operations	7	13%
	Product Management	3	5%
	Sales	2	4%
	Length of employment	1-3 years	27
4-6 years	17	30%	
7-9 years	6	11%	
10-12 years	6	11%	
> 12 years	0	0%	

### 3. RESULTS

The first step of the research framework analysis was importance-performance analysis. This approach should provide the current condition of each variable in Indonesian unicorn startups. Importance-performance analysis categorizes several indicators of each variable based on their importance and performance.

Table 2 shows that indicators “set own working hours,” “determine where to work,” “work from home,” “determine the way of work,” “supervisor does not get involved with the way of the job,” “supervisor evaluates on the quality of the work,” “ability to adapt my working scheme,” and “the possibility to work more or fewer hours” are classified as “Low priority.” Some aspects are considered less critical, which indicates that making improvements in these areas may not have a significant impact on the overall effectiveness of new ways of working. On the optimistic side, indicators “able to reach colleagues within the team,” “able to reach managers,” “able to reach colleagues outside the team,” “access all necessary information,” “access to all necessary information everywhere,” and “access to all necessary information at any time” are categorized as “Keep up the good work”

or “Concentrate here.” This implies that these aspects are crucial and are currently functioning effectively. It is indicated that leaders prioritize these elements, as they significantly contribute to the adaptability and effectiveness of the new ways of working. “The building is arranged so that colleagues are easily accessible” falls under the “Keep up the good work” category, emphasizing its importance and positive performance. On the other hand, “building is arranged so that managers are easily accessible” is categorized as “Concentrate here,” signaling its significance and implying that there may be opportunities for improvement.

Table 3 shows that indicators “exciting to go to work,” “enthusiastic about the work,” “feel happy when working,” “proud about the work,” “working has meaning and purpose,” “strong and vigorous at work,” “resilient at work,” and “working with energy” are classified as “Keep up the good work” or “Concentrate here.” This implies that attributes are important and perform well. “Persevere at the work,” “continue working for very long periods,” “challenging work,” “focus on working,” “carried away when working,” and “immersed in work” are identified as “Low priority.” Some indicators are identified as less critical, which implies that improving these may not significantly influence the overall work engage-

**Table 2.** Importance-performance analysis – New ways of working

Dimension	Indicator	Performance	Importance	Category
Time- and location-independent work	Set your own working hours	3.98	4.21	Low priority
	Determine where to work	3.98	4.23	Low priority
	Work from home	3.75	4.11	Low priority
Management of output	Determine the way of work	3.96	4.20	Low priority
	Supervisor does not get involved with the way of job	3.66	3.68	Low priority
	The supervisor evaluates the quality of the work	3.95	4.23	Low priority
Access to colleagues	Able to reach colleagues within the team	4.11	4.39	Keep up the good work
	Able to reach managers	4.13	4.46	Keep up the good work
	Able to reach colleagues outside the team	4.13	4.25	Keep up the good work
Access to information	Access all necessary information	4.11	4.34	Keep up the good work
	Access to all necessary information everywhere	4.25	4.41	Keep up the good work
	Access to all necessary information at any time	4.18	4.46	Keep up the good work
Flexibility in working relations	Ability to adapt my working scheme	3.79	4.16	Low priority
	The possibility of working more or fewer hours	3.82	4.05	Low priority
Freely accessible open workplaces	The building is arranged so that colleagues are easily accessible	4.09	4.38	Keep up the good work
	The building is arranged so that managers are easily accessible	3.98	4.39	Concentrate here

**Table 3.** Importance-performance analysis – Work engagement

Dimension	Indicator	Performance	Importance	Category
Vigor	Exciting to go to work	4.04	4.34	Concentrate here
	Working with energy	4.11	4.50	Keep up the good work
	Persevere at work	3.88	4.21	Low priority
	Continue working for very long periods	3.95	4.23	Low priority
	Resilient at work	4.14	4.39	Keep up the good work
	Strong and vigorous at the work	4.14	4.43	Keep up the good work
Dedication	Challenging work	3.98	4.16	Low priority
	Inspiring work	4.13	4.27	Possible overkill
	Enthusiastic about the work	4.00	4.36	Concentrate here
	Proud about the work	4.14	4.43	Keep up the good work
	Working has meaning and purpose	4.23	4.30	Keep up the good work
Absorption	Focus on working	3.89	4.07	Low priority
	Time flies when working	4.11	4.14	Possible overkill
	Carried away when working	4.00	4.16	Low priority
	Difficult to detach from the job	4.07	4.30	Keep up the good work
	Immersed in work	3.89	4.07	Low priority
	Feel happy when working	4.13	4.29	Keep up the good work

ment. While indicators “inspired work” and “time flies when working” are identified as “Possible overkill.” This indicates that these aspects are identified as important, but there may be areas for modification to ensure that the investment level associates with their perceived importance.

Based on Table 4, “work efficiency and effectiveness” is recognized as “Concentrate here” for improvement in the organization. This indicates the potential for additional enhancements. In contrast, “results,” “objectives,” and “team performance” fall into the category of “Low importance.” This means that these aspects are considered less important in affecting overall employee performance. The classification of the “knowledge” indicator as “Possible overkill” shows that although knowledge is estimated to be important, it can also be adjusted to make certain that the amount of investment is its perceived value. “Keep up the good work” categories incorporate “skills,” “quality,” “customer satisfaction,” and “teamwork.” This

indicates the importance of continuing these aspects, as they also have a significant impact on skill development, employee productivity, and overall company performance.

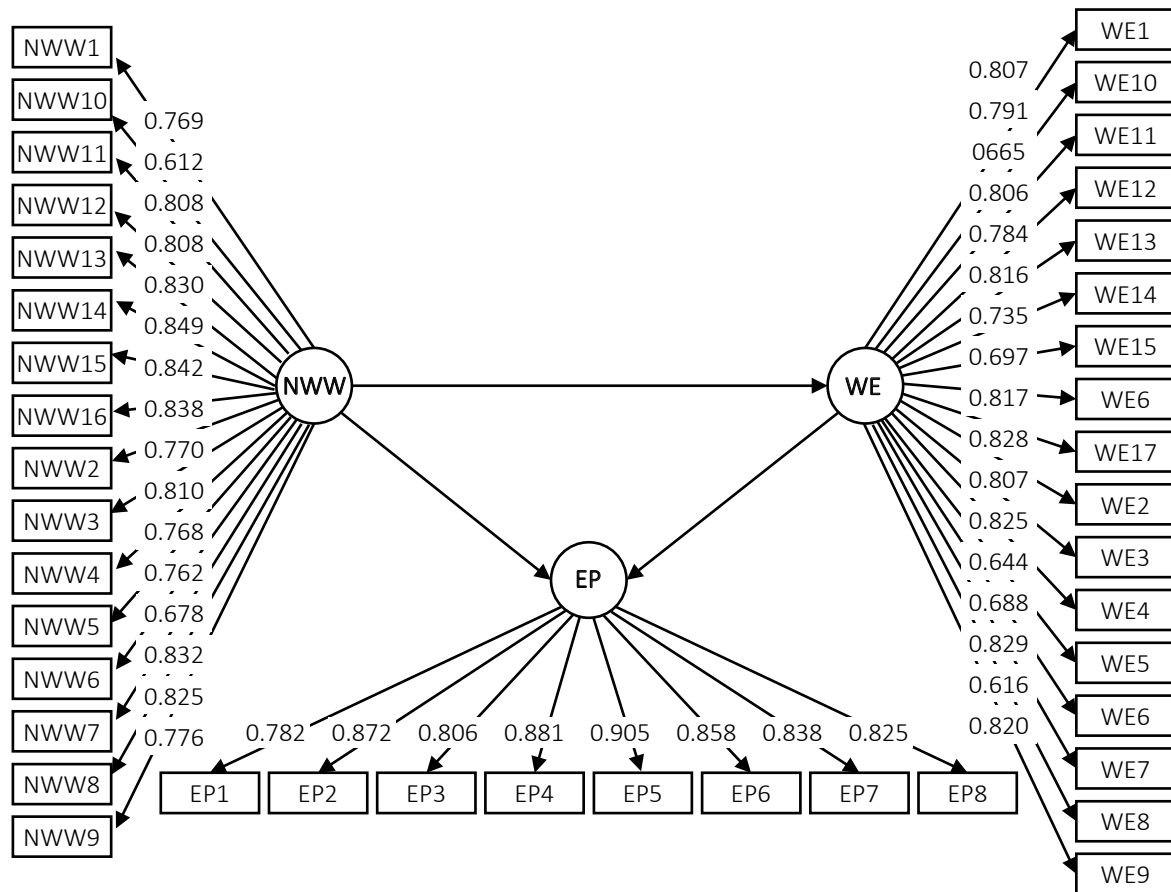
The second analysis step for the proposed research framework was partial least square structural equation modeling (PLS-SEM) through SmartPLS. The measurement evaluation covers outer and inner models.

For new ways of working, the loading factor values (Outer Loadings) of all statement items are  $> 0.70$ , and the AVE value is  $0.622 > 0.50$ . Then, all statement items are considered to have convergent validity (Haryono, 2016, p. 385), except for NWW6 and NWW10, which have loading factor values (Outer Loadings)  $< 0.70$ . Hence, these statement items should be excluded from the research model. After removing statement items, the loading factor values (Outer Loadings) of all statement items are  $> 0.70$ , and the AVE value is  $0.657 > 0.50$ . All

**Table 4.** Importance-performance analysis – Employee productivity

Dimension	Indicator	Performance	Importance	Category
Internal efficiency of the worker	Work efficiency and effectiveness	4.07	4.55	Concentrate here
	Results	4.09	4.38	Low priority
	Goals	4.07	4.32	Low priority
	Knowledge	4.18	4.41	Possible overkill
	Skills	4.25	4.52	Keep up the good work
Effectiveness of the outcomes	Quality	4.16	4.48	Keep up the good work
	Customer satisfaction	4.20	4.57	Keep up the good work
	Team performance	4.18	4.34	Possible overkill





Note: NWW = New ways of working; WE = Work engagement; EP = Employee productivity.

Figure 3. Convergent validity test

statement items are considered to have convergent validity (Haryono, 2016, p. 385).

For work engagement, the loading factor values (Outer Loadings) of all statement items are > 0.70, and the AVE value is 0.588 > 0.50. Therefore, all statement items have convergent validity (Haryono, 2016, p. 385), except for WE5, WE6, WE8, WE11, and WE16, which have loading factor values (Outer Loadings) < 0.70. Hence, statement items should be excluded from the research model. After removing statement items, the loading factor values (Outer Loadings) of all statement items are > 0.70, and the AVE value is 0.666 > 0.50. All statement items have convergent validity (Haryono, 2016, p. 385).

For employee performance, the loading factor values (Outer Loadings) of all statement items are >0.70, and the AVE value is 0.717 > 0.50. All statement items are considered to have convergent validity (Haryono, 2016, p. 385).

Table 5. Discriminant validity test

Indicator	NWW	WE	EP
NWW1	0.774	0.722	0.561
NWW2	0.793	0.661	0.632
NWW3	0.834	0.657	0.622
NWW4	0.781	0.569	0.615
NWW5	0.768	0.655	0.615
NWW7	0.824	0.776	0.828
NWW8	0.809	0.745	0.724
NWW9	0.777	0.697	0.630
NWW11	0.807	0.684	0.681
NWW12	0.799	0.698	0.708
NWW13	0.839	0.731	0.730
NWW14	0.864	0.660	0.659
NWW15	0.834	0.732	0.729
NWW16	0.835	0.689	0.792
WE1	0.697	0.845	0.639
WE2	0.732	0.852	0.734
WE3	0.735	0.837	0.664
WE4	0.696	0.831	0.624
WE7	0.756	0.822	0.764
WE9	0.828	0.823	0.805
WE10	0.650	0.795	0.676
WE12	0.677	0.815	0.625

**Table 5 (cont.).** Discriminant validity test

Indicator	NWW	WE	EP
WE13	0.651	0.784	0.592
WE14	0.652	0.828	0.636
WE15	0.617	0.738	0.620
WE17	0.643	0.814	0.645
EP1	0.686	0.729	0.783
EP2	0.723	0.747	0.873
EP3	0.668	0.739	0.807
EP4	0.749	0.727	0.881
EP5	0.743	0.686	0.905
EP6	0.778	0.655	0.857
EP7	0.661	0.668	0.838
EP8	0.709	0.633	0.824

Note: NWW = New ways of working; WE = Work engagement; EP = Employee productivity.

According to Savitri et al. (2021, p. 34), Hamid and Anwar (2019, p. 42), and Murniati et al. (2019, p. 158), if the cross-loading value of statement items is > 0.70, discriminant validity is valid. Table 5 shows that the cross-loading value of statement items of each variable is > 0.70; it can be concluded that discriminant validity is valid.

**Table 6.** Reliability test

Variable	Cronbach's alpha	Composite reliability (rho_c)
New ways of working	0.960	0.964
Work engagement	0.954	0.960
Employee productivity	0.943	0.953

Table 6 specifies that the values of Cronbach's alpha and composite reliability for all variables are >0.70. It can be concluded that all variables are reliable (Haryono, 2016, p. 383).

**Table 7.** Coefficient of determination

Variable	R-square	R-square adjusted
Work engagement	0.733	0.728
Employee productivity	0.753	0.744

Table 7 displays that the adjusted R-Square value for work engagement is 0.728. This indicates that new ways of working can explain 72.8% of

**Table 9.** Hypothesis testing result

Path	Path Coefficients	t-statistics	p-values	Explanation
NWW → EP	0.521	3.396	0.001	H <sub>1</sub> Accepted
NWW → WE	0.856	22.306	0.000	H <sub>2</sub> Accepted
WE → EP	0.379	2.338	0.019	H <sub>3</sub> Accepted
NWW → WE → EP	0.325	2.367	0.018	H <sub>4</sub> Accepted

Note: NWW = New ways of working; WE = Work engagement; EP = Employee productivity.

the variance in the work engagement variable. Therefore, the model is considered strong (Hamid & Anwar, 2019, p. 43). The adjusted R-square value for employee performance is 0.744, indicating that work engagement and new ways of working together can explain 74.4% of the variance in employee performance. Hence, the model is considered strong (Hamid & Anwar, 2019, p. 43).

**Table 8.** F-square test result

Path	F-square
NWW → EP	0.293
NWW → WE	2.747
WE → EP	0.156

Note: NWW = New ways of working; WE = Work engagement; EP = Employee productivity.

Table 8 shows that the path NWW → EP obtained an *f*-square value of 0.293. This indicates that new ways of working moderately influence employee performance (Haryono, 2016, p. 384). The path NWW → WE obtained an *f*-square value of 2.747. This indicates that new ways of working strongly influence work engagement (Haryono, 2016, p. 384). Lastly, the path WE → EP obtained an *f*-square value of 0.156. This indicates that work engagement moderately influences employee performance (Haryono, 2016, p. 384).

According to Table 9, the path NWW → EP obtained a *t*-statistic value of 3.396 > 1.96 and a *p*-value of 0.001 < 0.05. Thus, H<sub>1</sub> is accepted, indicating that new ways of working have an effect on EP. While the path NWW → WE obtained a *t*-statistic value of 22.306 > 1.96 and a *p*-value of 0.000 < 0.05. Thus, H<sub>2</sub> is accepted, indicating that new ways of working have an effect on work engagement. The path WE → EP obtained a *t*-statistic value of 2.338 > 1.96 and a *p*-value of 0.019 < 0.05. Thus, H<sub>3</sub> is accepted, indicating that work engagement has an effect on employee performance. Lastly, the path NWW → WE → EP obtained a *t*-statistic value of 2.367 > 1.96 and a *p*-value of 0.018 < 0.05. Thus, H<sub>4</sub> is accepted, indicating that new ways of working

**Table 10.** Model fit results

Measure	Saturated model	Estimated model
SRMR ((Standardized Root Mean Square Residual)	0.076	0.076
d_ ULS (Unweighted Least Squares Discrepancy)	3.444	3.444
d_ G (Geodesic Discrepancy)	6.295	6.295
Chi-square	1187.214	1187.214
NFI (Normed Fit Index)	0.572	0.572

have an effect on employee performance through work engagement (Haryono, 2016, p. 384).

Table 10 states that the NFI value is 0.572, which is close to 1, and the SRMR value is  $0.076 < 0.08$ . It can be concluded that the model fits well (Santoso & Rahardjo, 2021, p. 91).

## 4. DISCUSSION

The establishment of new ways of working has been an approach for adaptation in the advanced work environment in organizations. While its popularity focuses on flexible schedules and remote work, organizations are signaling a shift in how work is managed and performed. This shift has not only reformed the dynamics of the workplace but has also emphasized the importance of adapting to a more adaptable and flexible work environment in an organization. It reflects a positive influence with positive results (e.g., employee engagement) within virtualizing organizations (Kingma, 2019).

This study's result confirms that new ways of working initiatives significantly affect employee productivity and work engagement. The finding aligns with previous studies that highlighted the positive impact of new ways of working practices (e.g., flexible working arrangements and remote working) on organizational consequences (Cornu, 2022; Wadu Mesthrige & Chiang, 2019; Gerards et al., 2018; Andrulli & Gerards, 2023; Weideman & Hofmeyr, 2020). These findings highlight the capability of new ways of working approaches to enhance productivity and promote employee engagement in a fast-paced industry.

The importance-performance analysis of new ways of working can be used to prioritize potential key solutions since it will facilitate preserving strong performance in certain areas while concentrating on important conditions. Maintaining performance involves refining workplace practices re-

lated to communication channels, ensuring seamless access to information across various platforms and at any time, and enabling access to necessary information within and outside team members, managers, and colleagues. Organizations should also improve the arrangement of the workstation to increase accessibility and foster cooperation among colleagues. It could be a vital answer in maintaining improved employee engagement and productivity levels in organizations. Although some attributes may not require critical attention from leaders, this can still ensure a favorable work environment that reduces supervisor intervention and creates flexibility in work arrangements.

The results also indicate the importance of work engagement in employee performance. This is consistent with previous studies that highlight the positive impact of work engagement on employee productivity in organizations (Abdelwahed & Doghan, 2023; Uddin et al., 2019; Van Den Heuvel et al., 2020). This finding highlights the significance of highly engaged workers in increasing the organization's effectiveness in the competitive business world. Moreover, the results indicate that work engagement is a significant mediator in the relationship between new ways of working and employee productivity. Companies aiming to expand the benefits of new ways of working programs should prioritize the implementation of measures that enhance employee job engagement. The results confirm prior research indicating that flexible work arrangements might enhance well-established consequences of employee engagement and worker productivity (Weideman & Hofmeyr, 2020). New ways of working have become a fundamental approach to maintaining work engagement and job performance (Lazauskaite-Zabielske et al., 2021; Sekhar et al., 2018).

It is critical to prioritize strategies to increase work engagement based on importance-performance analysis. Specific attention should stay on intro-

ducing new and innovative challenges, implementing systems to recognize accomplishments, and providing opportunities for personal and professional growth to create enthusiasm and motivation for the jobs. It is imperative to maintain elevated levels of energy, resilience, and a sense of purpose in the workplace through the formation of a work-life balance, the emphasis on the importance of individual contributions, and the provision of supportive tools. Although some variables may already be functioning effectively, it is crucial to maintain a balance to avoid potential exhaustion by ensuring that sufficient support resources and self-care practices are implemented with job motivation. It is important not to overlook aspects such as taking steps to solve separation from work and regularly examining employment concerns that can promote continuous engagement.

Looking at the demography of respondents, the survey participants fall between the ages of 24 and 42, generally known as the Millennial generation (Milkman, 2014). Younger leaders may better understand their team's needs and preferences, which allows them to recognize the good impact of new ways of working practices in the workplace. The familiarity of this cohort with technology increases their willingness to embrace new ideas and try out unconventional solutions (Curley & Salmelin, 2018). In addition, the survey respondents represented a significant number of individuals from marketing and information technology positions. According to the Upper Echelons Theory, an individual's professional background can impact how efficiently a company is governed (Liu, 2023), as well as their perception of

the relevance and applicability of new ways of working practices within unicorn startups in Indonesia. Marketing-savvy leaders may identify the practices to increase creativity, while leaders with IT skills facilitate remote working, and both can improve team productivity in organizations.

The results highlight the importance of a complete approach, considering the relationship between work engagement, new ways of working methods, and employee productivity. It is vital to recognize how the traditional view of workplace practices can be radically changed and understand the significant impact of these new ways of working among organizations. This study offers useful insights into the impact of new ways of working on work engagement and employee productivity, as evaluated by company leaders.

It is essential to recognize specific limitations that could affect the significance of the research results. Future research should conduct longitudinal studies in different settings and apply numerous data sources to attain a more in-depth understanding of the influences of new ways of working, work engagement, and productivity from employee perspectives. This research scope primarily focuses on assessing new ways of working impact on work engagement and employee productivity and examining its possible role as a mediator. However, there are phenomena related to startups that face the risk of innovation stagnation, which can hinder their success. Hence, it is crucial to acknowledge the potential influence of many aspects, such as entrepreneurial behavior, and incorporate the results-oriented culture as a moderating component.

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## CONCLUSION

The aim of this study was to investigate the impact of new ways of working on work engagement and employee productivity from leaders' perspectives in Indonesian unicorn startups in the post-pandemic period. Based on the data analysis using partial least square structural equation modeling, the findings indicate that new ways of working significantly affect work engagement and productivity. It also identifies work engagement as a significant driver of employee productivity. The impact of new ways of working on employee performance is also mediated by work engagement, emphasizing the connection between these factors. This study offers novel findings that fill the gap in research focusing on leadership perspectives by examining outcomes of the interaction of these variables, especially in Asia post-pandemic.

The results provide beneficial insights and implications for unicorn startup leaders and academicians. The importance-performance analysis emphasizes potentially improving positive aspects while carefully addressing areas needing optimization. This study also emphasizes the significant impact of new

ways of working on work engagement and employee productivity in organizational contexts. It explains that new ways of working make a great contribution to advancing productivity, and these practices also have an important influence in promoting work engagement. This also demonstrated that work engagement is associated with employee performance, suggesting that increased work engagement can improve productivity. In addition, it explains that new ways of working significantly influence employee productivity through work engagement. Unicorn startups should implement new working strategies to foster worker engagement, expand employee productivity, and use integrated strategies that utilize these relationships.

## AUTHOR CONTRIBUTIONS

Conceptualization: Jefta Harlianto, Harjanto Prabowo, Rano Kartono Rahim, Nugroho J. Setiadi.

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# APPENDIX A

## QUESTIONNAIRE

### Part One: Personal Data

**Table A1.** Questionnaire of personal data

Profile		
Gender	Male	Female
Length of Employment	< 1 year	1-3 years
	4-6 years	7-9 years
	10-12 years	> 12 years
Age	18-23 years old	24-42 years old
	43-59 years old	> 59 years old
Job Field	Marketing	Human Resources
	Sales	Finance
	Information Technology (IT)	Operations
	Product Management	General Affairs
	Purchasing	Others: .....

**Table A2.** Work engagement, new ways of working, and employee productivity questionnaire

Questions	Importance					Relevance				
	Very Unimportant	Unimportant	Fairly Important	Important	Very Important	Very Irrelevant	Irrelevant	Fairly Relevant	Relevant	Very Relevant
<b>Work Engagement</b>										
When they wake up in the morning, employees feel like going to work.										
While working, employees feel full of energy.										
While working, employees can persevere even when things are not going well.										
While working, employees can maintain focus for a very long time.										
While working, employees are mentally resilient.										
While working, employees feel strong and vigorous.										
Employees find their work challenging.										
Employees find their work inspiring.										
Employees are enthusiastic about their work.										
Employees are proud of their work.										
The work employees do is full of meaningful purpose.										
While working, employees are so focused they forget everything else around them.										
Time flies when employees are working.										
Employees get carried away when working.										
Employees are completely absorbed in their work.										
Employees enjoy being immersed in their work.										
Employees feel happy when working intensely.										

**Table A2 (cont.).** Work engagement, new ways of working, and employee productivity questionnaire

Questions	Importance					Relevance				
	Very Unimportant	Unimportant	Fairly Important	Important	Very Important	Very Irrelevant	Irrelevant	Fairly Relevant	Relevant	Very Relevant
<b>New Ways of Working</b>										
Employees have the flexibility to set their own working hours.										
Employees have the flexibility to choose their working location.										
Employees have the flexibility to work from home (if they wish).										
Employees have the flexibility to determine how they work.										
Supervisors are not involved in determining how employees work.										
Supervisors evaluate employees based on the quality of their work (not how they work).										
Employees can quickly contact their team members.										
Employees can quickly contact their supervisors.										
Employees can quickly contact colleagues outside their team.										
Employees have access to all necessary work information on their devices (e.g., computer, smartphone, or tablet).										
Employees have access to all necessary work information from anywhere.										
Employees have access to all necessary work information at any time.										
Employees have the flexibility to adjust their work schedules to fit their personal life.										
Employees have the flexibility to determine the length of their work hours.										
The office layout is arranged so that employees can easily reach their colleagues.										
The office layout is arranged so that employees can easily reach their supervisors.										
<b>Employee Productivity</b>										
Employees perform their job tasks efficiently (smoothly, without obstacles).										
Employees achieve satisfactory results related to their job targets.										
Employees can use most of their working time for tasks relevant to their job targets.										
Employees can utilize their knowledge efficiently in their work.										
Employees can utilize their skills efficiently in their work.										
Employees' work results are of good quality.										
Employees can meet customer expectations (internal or external) in their work.										
Employees' work teams function well.										