

Entrepreneurial Self-Employment and Work Engagement in MSMEs Through Autonomy and Rewards

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ABSTRACT

The rise of self-employment highlights the need to understand its implications on workers engagement, especially for those in economically dependent Solo Self-Employment (EDSSE) and Necessity Self-Employment (NSE). **This study aims** to examine the effects of these two self-employment types on skill discretion, rewards, autonomy, and work engagement, as well as the mediating roles of these three intrinsic job resources. **Using a quantitative approach**, data were collected via questionnaires from self-employed individuals in Jakarta who have worked for at least one year. Partial Least Square (PLS) analysis was employed to evaluate the relationships between variables. **The results reveal** that both EDSSE and NSE positively influence skill discretion, rewards, autonomy, and work engagement. Furthermore, these intrinsic job resources mediate the relationship between self-employment types and work engagement, highlighting their pivotal role. **The findings emphasize** that both direct and mediated effects contribute positively to work engagement among self-employed workers. This research offers practical insights into the role of intrinsic resources in enhancing engagement and provides theoretical contributions to self-employment literature. Further studies are suggested to explore the moderating influence of demographic and contextual factors in different self-employment settings.

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1. INTRODUCTION

As the economy develops, more and more individuals are choosing to work independently. Independent workers are divided into two, namely Economically Dependent Solo Self-Employed (EDSSE), which depends on the main contractor, and Necessity Self-Employment (NSE), which works independently due to economic needs. The government encourages entrepreneurial values among its staff. Neoliberalism glorifies entrepreneurs as a symbol of personal and professional success, portraying them as independent, proactive, and highly committed. Work involvement is an important component in entrepreneurial rhetoric. However, research on the work involvement of self-employed people is still limited, so it is important to know whether they are actually involved in the work as believed [1].

The employment landscape has changed with the rise of self-employment, divided into two categories,

namely the economically dependent self-employed, those who are self-employed due to economic limitations, and the self-employed out of necessity, who do so because there is no other option. Understanding the implications of these two types of entrepreneurship on work engagement is important in today dynamic workforce [2].

The increase in independent entrepreneurship is shown by the increasing growth of Micro, Small and Medium Enterprises (MSMEs).

Data on MSMEs 2018-2023					
Years	2018	2019	2020	2021	2023
Number of MSMEs	64.19	65.47	64	65.46	66
Growth (%)		1.98%	-2.24%	2.28%	1,52%

Figure 1. MSME Data 2018-2023

Based on the data above, it can be seen that the number of MSMEs has fluctuated leading to growth. In 2018 the number of MSMEs was 64.19 million which then increased by 1.98% to 65.47 million. However, this number decreased by 2.24% to 64 million which was affected by Covid-19. The number of MSMEs increased again by 2.28% in 2021 to 65.46 million and again increased by 1.52% to 66 million in 2023. This shows an increase in the number of entrepreneurs from year to year [3].

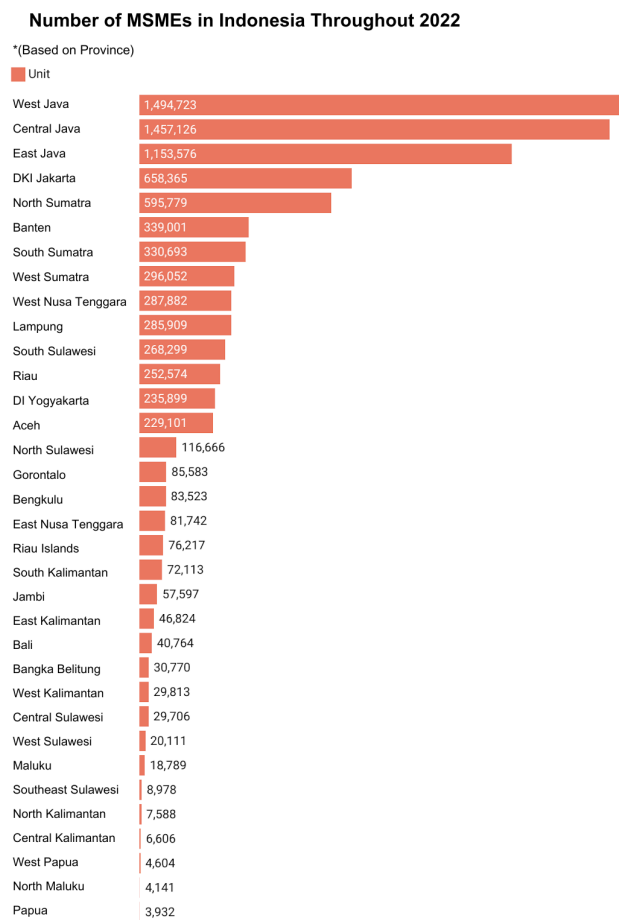


Figure 2. Number of MSMEs in Indonesia in 2022

Source: umkmindonesia.id

Based on the image above, the province with the highest MSMEs is West Java, then in second place is Central Java, followed by the province of East Java. The fourth position is occupied by DKI Jakarta and the fifth is North Sumatra. The data above shows that the growth of MSMEs in Indonesia is still uneven because the top four positions are provinces on the island of Java. This can be due to the uneven distribution of Human Resources (HR). Due to their high growth rate, MSMEs also require careful and appropriate use of human resources to ensure their high performance, effectiveness, and efficiency. Changes in the research paradigm and organizational capacity have caused HR management to grow rapidly and become one of the most important assets of the organization [4]. Employees must work as best as possible and have a connection with the company for business success to be realized. Effective HR management will facilitate the process of achieving the company work quality goals. Workers who are highly engaged in work and think positively will do more work faster [5].

In Indonesia, Micro, Small, and Medium Enterprises (MSMEs) are classified into three different categories based on their asset size and annual sales revenue. This classification helps in providing targeted support and resources to businesses according to their scale and needs. The following are the types of MSMEs in Indonesia:

- Micro Enterprises are the smallest scale businesses in Indonesia. Assets: The business has assets excluding land and buildings worth up to IDR 50 million (approximately USD 3.500). Their annual sales revenue does not exceed Rp 300 million (around USD 21.000).

Examples: Small roadside stalls, home-based businesses, street vendors, and small-scale artisans.

- Small Business is a small business that is slightly larger than a micro business but still operates on a relatively small scale. They have assets outside the land and buildings that are worth more than Rp 50 million but less than Rp 500 million (about USD 35.000). Their annual sales revenue ranges from IDR 300 million to IDR 2.5 billion (around USD 175.000).

Examples: Local shops, small manufacturing units, small restaurants, and service providers such as small workshops and consulting firms.

- Medium businesses are larger than small businesses but not as large as large corporations. The business has assets excluding land and buildings worth between Rp 500 million to Rp 10 billion (about USD 700.000). Their annual sales revenue ranges from IDR 2.5 billion to IDR 50 billion (around USD 3.5 million).

Examples: Larger retail stores, mid-scale factories, import-export businesses, and larger service providers such as mid-scale IT companies and construction companies.

This classification is critical for the implementation of policies and programs designed to support MSMEs, such as access to financing, training, and market opportunities. The Indonesian government and various development agencies are tailoring their support based on these categories to drive growth, competitiveness and sustainability among MSMEs.

A study on the level of employee engagement around the world was conducted by Gallup. Gallup conducted research on employees in 155 countries. The employees studied from each country amounted to 1,000 people with an age range of 23-65 years. The results of the study show that the level of employee work engagement is still very low. The report shows that 85% of employees worldwide feel disengaged with their work and in Southeast Asia only 19% of employees are engaged with their work. The same survey showed that 76% of employees in Indonesia felt unengaged with their work. Indonesia is also the country with the highest percentage of unengaged employees compared to other countries in Southeast Asia.

Research on the level of work engagement in Indonesia has also been conducted by Shabrina and Mardiawan in Bandung. The results of the study stated that there were 30% of employees with a high level of work engagement and 70% of employees with a low level of work engagement. From the data above, it can be seen that work engagement in Indonesia is still low. Therefore, the company must pay special attention to employees so that they can maintain the quality of the company. Work engagement must also be maintained so that employees avoid the phenomenon of burnout, which is an employee who feels physically and emotionally tired because of his work. If the level of employee work engagement is high, employees will not only feel happy while doing their tasks, but also willing to spend more time at work.

Work engagement is needed by companies if a company wants to grow. Lack of work engagement can make employees feel less enthusiastic about work. This condition makes employees feel always burdened at work and feel less productive. This makes employees think about leaving their jobs and looking for new jobs. If many employees leave the company, it can be detrimental to the company. Companies can lose valuable knowledge, skills, and abilities in employees, as well as lose pre-established coordination patterns. Therefore, low work engagement can lead to a decline in overall company performance [6].

Based on the results of a survey conducted by One CareerBuilder on the millennial generation, it is known that 45% of college graduates who have just been recruited by a company only want to stay in the company for two years. In addition, based on the Indonesia Millennials Report 2019, 35.1% of Indonesian millennials admitted that they would work in the same place within two to three years and only 13.1% of millennials made ten years the ideal time to work in the same place. The results of the survey show that the millennial generation has poor engagement in their work [7]. Based on the existing phenomenon related to work engagement, especially in Generation Y employees, employees feel tired of their work routines, employees can work seriously when they are under pressure related to tasks that must be completed and feel less enthusiastic because they have to face work challenges.

Economically dependent self-employed workers often face difficult economic conditions, which can potentially impact their overall work engagement. Economic uncertainty and financial stress are negatively related to work attachment, thus emphasizing the importance of considering economic factors in understanding the level of involvement of self-employed individuals. Self-employment due to need, driven by external circumstances, can have different impacts on individuals. Entrepreneurs in need may experience increased stress due to financial stress, potentially affecting their engagement. Understanding the unique challenges faced by self-employed individuals due to necessity is essential to understand their level of work engagement.

In most cases, self-employed people work for multiple customers without placing themselves in hierarchical subordination to them. However, recent discussions have turned our attention to situations where self-employed people are officially classified as self-employed, but do not benefit from those advantages. from entrepreneurs. Instead, they are economically dependent on a number of clients who are their biggest source of income. For reasons of cost control, more and more employers are hiring independent workers to perform the work that is usually done by workers, as this allows them to avoid, among other things, minimum wage, compensation in the event of dismissal, holiday pay and payment for sick leave.

The risk of entrepreneurship is shifted to contracted self-employed workers. This means that the quantity of work for independent workers is highly dependent on the main client. Economically dependent self-employed are increasingly found in two different niches of the labor market: among high-skilled (liberal) professions, and among low-skilled side hustles. These activities are characterized by a high level of expertise, specialization and competence resulting in a strong labour market position, although the workers involved are often dependent on a single employer. At the same time, in the lower labor market, the activities of non-core and low-skilled companies are also increasingly contracted to low-skilled and self-employed workers. Especially the latter situation is usually related to negative psychosocial consequences that have a major impact on health, such as increased insecurity, low feelings of control over one work life, and low feelings of autonomy and competence which can all contribute to low work engagement.

2. LITERATURE REVIEW

2.1. The Influence of Economically Dependent Solo Self-Employment on Skill Discretion

Solo self-employed are individuals who work independently without employees. Economically dependent self-employed solo depend on one or a few key customers for their income. Skill discretion refers to the freedom of individuals to use skills and knowledge in their work. Reliance on one key customer can reduce skill discretion because workers have to adapt their work to the needs of that customer. However, research shows different results. Stephan found that economically dependent self-employed workers have a higher level of skill discretion compared to those who have a more diverse client base. [8] and [9] also found a positive correlation between economic dependence and skill discretion, highlighting the importance of economic dependence in encouraging skill development.

H1: Economically Dependent Solo Self-Employment Positively Influences Skill Discretion.

2.2. The effect of Economically dependent solo self-employed on Rewards

Economic dependence on one or a few key customers can affect the various forms of appreciation received by self-employed solos. Rewards include financial aspects such as income, as well as non-financial aspects such as recognition, job satisfaction, and flexibility. Individuals who rely on key customers may face higher financial uncertainty, but can also benefit from closer working relationships. Research by Kautonen found that economically dependent self-employed workers reported higher levels of income satisfaction than workers with multiple clients. This dependency can increase appreciation for financial rewards and a sense of accomplishment. [9] also showed that self-employed workers with economic dependence tend to engage in job-creating behaviors, which allows them to tailor tasks to their preferences, thereby increasing intrinsic rewards such as satisfaction and enjoyment. Additionally, recognition and praise from key clients can increase their sense of validation and motivation. Understanding the influence of economic dependence on rewards can help companies and workforce policies design sustainable reward strategies, paying attention to various aspects of self-reliance worker satisfaction and well-being.

H2: Economically dependent solo self-employed has a positive effect on Rewards.

2.3. The Influence of Economically Dependent Solo Self-Employment on Autonomy

Independent workers who are economically dependent on a few key customers may lose autonomy because such dependency limits control over time, project types, and strategic decisions. Although it is considered to have high autonomy, economic dependence can reduce the level of control of individuals. It emphasizes the need to understand the relationship between economic dependence and autonomy in order to design policies that support the independence of self-employed workers in a changing economy.

Research by Richter and Welter found that economically dependent self-employed workers reported greater autonomy in decision-making compared to those with a diverse client base. This autonomy stems from the need to navigate their work environment independently to maintain relationships with clients and secure future revenue. Additionally, single self-employed individuals who are economically dependent may have the freedom to choose projects and set their schedules, allowing them to align work with their preferences and priorities. The research of [10] highlights that economic dependency can empower self-employed individuals to exercise greater control over their work processes, thus leading to increased autonomy and flexibility.

H3: Economically Dependent Solo Self-Employment Positively Influences Autonomy.

2.4. Economically dependent solo self-employed influence on Work Engagement

Economic dependence on key customers can affect the work engagement of self-employed workers. While this is often thought to reduce motivation, research shows that economic dependency can actually increase engagement by encouraging deeper investment in work to maintain client relationships and revenue [11]. It can also increase a sense of belonging and responsibility towards the outcome of the work, which in turn increases the dedication and enthusiasm of Van Gelderen.

The research of [2] highlights that economic dependency fosters a deep commitment to work among the self-employed, resulting in higher levels of work engagement compared to those with a more diverse client base. In addition, economic dependence can provide a sense of purpose and satisfaction for sole proprietors, thus contributing to their overall job satisfaction and engagement. The positive relationship between economic dependency and work engagement underscores the importance of autonomy and accountability in shaping the work experience of self-employed individuals.

H4: Economically dependent solo self-employed has a positive influence on Work Engagement.

2.5. The Influence of Necessity Self-Employment on Skill Discretion

Necessity self-employment refers to a situation in which an individual chooses to become self-employed not because of a career choice, but rather because of economic instability or a lack of formal employment options. In this condition, skill discretion, which is the extent to which individuals can use and develop their skills at work, can be affected. Necessity self-employment is often associated with less high-skill-oriented work, and individuals may face limitations in exercising creativity or freedom in managing their skills. Therefore, an understanding of the effect of necessity self-employment on skill discretion can provide insight in designing economic policies that support the skill development and independence of independent workers, especially in the context of work that arises from needs rather than choices [12].

Research by [8] found that individuals who engage in entrepreneurship out of necessity often develop a diverse range of skills necessary to adapt to various tasks and roles, thus leading to an increase in skill wis-

dom. In addition, individuals who work independently out of necessity often face challenging and diverse tasks in their entrepreneurial ventures, requiring the utilization and refinement of various skills. Exposure to these diverse responsibilities increases their autonomy in skill dissemination and decision-making, thus contributing to greater skill wisdom. The research of Kautonen highlights that need-driven entrepreneurs tend to perform more skill-enhancing activities compared to opportunity-driven entrepreneurs, thus further supporting the positive relationship between entrepreneurs due to skill needs and wisdom.

H5: Necessity self-employment has a positive effect on Skill discretion.

2.6. Effect of Necessity self-employment on Rewards

Necessity self-employment often arises as a result of economic necessity rather than career choice, which can affect the type and level of reward that the individual receives [13]. Self-employed workers who engage in necessity self-employment may face challenges in obtaining stable and consistent financial rewards, as their work tends to be more related to urgent needs than added value or creativity. In addition, rewards in the form of professional recognition or job satisfaction can also be affected by limitations in the scope of work that may not always be in accordance with individual skills or interests. Therefore, a deep understanding of the effect of necessity self-employment on rewards can help in designing policies that support the welfare and motivation of self-employed workers, especially those who pursue self-employment due to urgent economic needs.

Fossen and König revealed that need-driven entrepreneurs often experience increased satisfaction with their income and financial rewards compared to their counterparts who work as wage workers. The increased appreciation of financial rewards may come from the autonomy and control over the income generation inherent in entrepreneurship. In addition, individuals who work independently out of necessity tend to get intrinsic rewards from their entrepreneurial ventures. Research by [2] shows that need-driven entrepreneurs often report higher levels of satisfaction and satisfaction in running their businesses, thus contributing to overall well-being and life satisfaction.

H6: Necessity self-employment has a positive effect on Rewards

2.7. The Effect of Necessity Self-employment on Autonomy

Necessity self-employment, which arises in response to economic needs rather than career aspirations, can result in lower levels of autonomy. Individuals who engage in necessity self-employment may be limited in choosing the type of job or project they want, as their decisions are often driven more by financial need than personal preference [14]. In addition, reliance on projects that arise as an emergency can reduce the freedom to plan work schedules or set long-term work strategies. Therefore, a deep understanding of the effect of necessity self-employment on autonomy can provide valuable insights into designing policies that support independence and freedom of decision for self-employed workers, even when they are engaged in self-employment arising from urgent economic needs.

Research conducted by Welter and Richter highlights that need-driven entrepreneurs show a strong sense of ownership and responsibility for their businesses, thereby encouraging autonomy in decision-making and strategy implementation.

H7: Necessity self-employment has a positive effect on Autonomy

2.8. The Influence of Necessity Self-Employment on Work Engagement

Necessity self-employment, which arises as a result of economic need, can affect the level of work engagement due to financial pressures that may reduce satisfaction and intrinsic motivation in carrying out tasks [15]. Individuals who engage in necessity self-employment may face challenges in finding personal meaning and satisfaction in their work, as their decisions are influenced more by needs than career aspirations. Although self-employed workers are often associated with high levels of engagement because they have control over their work, urgent economic needs can limit their level of motivation and focus on work [16]. Therefore, understanding the influence of necessity self-employment on work engagement can provide important insights in developing support strategies and policies that encourage the involvement and well-being of self-employed workers, especially in the midst of underlying economic challenges [17].

The research of Kautonen highlights that need-driven entrepreneurs tend to have a high commitment to their business, thereby increasing job engagement rates compared to other types of work [18]. Entrepreneurship due to necessity provides individuals with opportunities for skill development and autonomy, which can

increase a sense of competence and satisfaction in their jobs, thus contributing to higher levels of work engagement. This involvement is further strengthened by the meaningful relationships that individuals develop with their work and the sense of accomplishment that comes from overcoming challenges [2].

H8: Necessity self-employment berpengaruh positif terhadap Work Engagement

2.9. The Effect of Skill Discretion on Work Engagement

Discretion skills reflect an individual's ability to make decisions and apply creativity in carrying out tasks that require special skills. Workers who have a high level of skill discretion may be more likely to engage positively in their work because they can feel the immediate impact of their skill contributions. The ability to use and develop skills can also increase a sense of accomplishment and job satisfaction, which in turn can increase engagement rates. Therefore, understanding the positive relationship between skill discretion and work engagement can provide valuable insights into designing a work environment that facilitates the optimal use of individual skills and supports high work engagement.

Research by Bakker and Demerouti shows that employees who have greater autonomy and control over their job tasks, including the flexibility to use their skills, tend to experience higher levels of engagement. Moreover, the research of Petrou highlights that skill wisdom plays an important role in fostering a sense of mastery and achievement in employees, which is a key component of work engagement [19]. When individuals have the opportunity to apply their skills and make meaningful contributions to their work, they will be more likely to feel motivated and invested in their tasks.

H9: Skill discretion has a positive effect on Work Engagement

2.10. The Effect of Rewards on Work Engagement

Rewards can include financial rewards, recognition of achievements, career development opportunities, or other non-financial factors. When workers feel valued and recognized, this can increase their motivation and engagement at work [20]. Fair financial rewards and rewards for contributions can create a positive bond between workers and work, increasing a sense of ownership over the tasks undertaken. Conversely, a lack of recognition or inequality in the provision of rewards can be detrimental to work motivation and engagement [21]. Therefore, a good understanding of how rewards affect work engagement can help companies design reward systems that support workers well-being and motivate them to engage optimally in their work.

Harter found that employees who felt adequate reward and recognition for their contributions tended to be more engaged in their work. This highlights the importance of extrinsic rewards, such as monetary compensation and praise, in encouraging engagement. In addition, intrinsic rewards, such as a sense of achievement and personal growth, also positively affect work engagement. Research conducted by Deci and Ryan shows that when employees feel autonomy, competence, and connectedness in their work, they tend to experience intrinsic motivation and engagement. In addition, research conducted by Grant highlights the role of meaningful work as reward, which encourages engagement by giving employees a sense of purpose and satisfaction.

H10: Rewards have a positive effect on Work Engagement

2.11. The Effect of Autonomy on Work Engagement

Autonomy allows individuals to align their work with their preferences, strengths, and values, leading to a deeper sense of satisfaction and satisfaction. Research conducted by [22] highlights that when employees have the freedom to make decisions and choose how to perform their tasks, they tend to experience intrinsic motivation and engagement. In addition, autonomy fosters a sense of ownership and responsibility for the results of one work, further increasing engagement. A study by Baard emphasizes the importance of leadership that supports autonomy in encouraging engagement by empowering employees to take initiative and take control of their work processes [23].

H11: Positive autonomy towards Work Engagement

2.12. The Effect of Economically Dependent Solo Self-employed on Work Engagement with Skill discretion as a Mediation Variable

Skills wisdom, which refers to the autonomy and control that individuals have over their job tasks, plays an important role in improving work engagement [24]. Research by Demerouti shows that employees who feel a higher level of skill discretion experience greater engagement, as they tend to feel motivated, competent, and absorbed in their tasks. In addition, skill discretion acts as a mediator in the relationship between economic

dependence and engagement work a study by Van Gelderen highlights that skill discretion may partially explain the positive impact of economic dependence on work engagement among single self-employed [25].

H12: Economically dependent solo self-employed has a positive effect on Work Engagement with Skill discretion as a mediating variable.

2.13. The Effect of Economically Dependent Solo Self-employed on Work Engagement with Rewards as a Mediation Variable

Research by Harter shows that employees who feel adequate appreciation and recognition for their contributions tend to be more engaged in their work. This includes self-employed individuals who rely on positive feedback and financial stability to maintain motivation and commitment. In addition, rewards act as a mediator in the relationship between economic dependency and work engagement among solo self-employed. A study conducted by [8] highlighted that rewards may partly explain the positive impact of economic dependence on work engagement, as individuals are motivated by the financial and intrinsic benefits associated with their work.

H13: Economically dependent solo self-employed has a positive effect on Work Engagement with Rewards as a mediating variable.

2.14. The Effect of Economically Dependent Solo Self-employed on Work Engagement with Autonomy as a Mediation Variable

Research conducted by Deci and Ryan shows that employees who feel a high level of autonomy experience greater intrinsic motivation and engagement, as they feel a sense of ownership and responsibility for the results of their work. In addition, autonomy acts as a mediator in the relationship between economic dependence and employment engagement among sole self-employed. A study by [2] highlights that autonomy may partly explain the positive impact of economic dependence on work engagement, as individuals are empowered to align their job duties with their preferences and strengths [26].

H14: Economically dependent solo self-employed has a positive effect on Work Engagement with Autonomy as a mediating variable.

2.15. The Effect of Necessity Self-employment on Work Engagement with Skill discretion as a Mediation Variable

Research conducted by Bakker and Demerouti shows that employees with a high level of skill discretion experience greater engagement, because they feel empowered and competent in their job duties [27]. In addition, skill wisdom acts as a mediator in the relationship between entrepreneurial needs and work engagement. The research of [22] highlights that skills wisdom can partly explain the positive impact of entrepreneurial needs on work engagement, as individuals with diverse skills are better able to align their tasks with their abilities and interests, leading to increased engagement.

H15: Necessity self-employment has a positive effect on Work Engagement with Skill Discretion as a mediating variable

2.16. The Effect of Necessity Self-Employment on Work Engagement with Rewards as a Mediation Variable

Research by Harter shows that employees who feel adequate appreciation and recognition for their contributions tend to be more engaged in their work. This includes self-employed individuals who rely on positive feedback and financial stability to maintain motivation and commitment. A study conducted by [8] highlighted that rewards can partly explain the positive impact of entrepreneurial needs on work engagement, as individuals are motivated by the financial and intrinsic benefits associated with their work.

H16: Necessity self-employment has a positive effect on Work Engagement with Rewards as the mediating variable.

2.17. The Effect of Necessity Self-Employment on Work Engagement with Autonomy as a Mediation Variable

Research conducted by Deci and Ryan shows that employees who feel a high level of autonomy experience greater intrinsic motivation and engagement, as they feel a sense of ownership and responsibility for the results of their work. Furthermore, [2] highlight that autonomy can partly explain the positive impact of entrepreneurial needs on work engagement, as individuals with greater autonomy will be better able to align their work with their preferences and values, leading to increased engagement.

H17: Necessity self-employment has a positive effect on Work Engagement with Autonomy as a mediating variable.

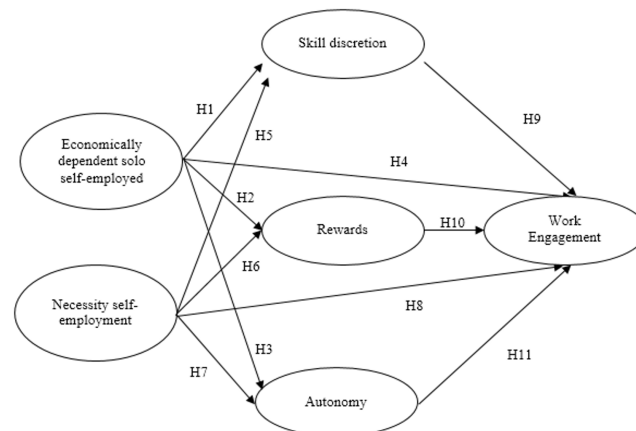


Figure 3. Research Model

The research method applied in this study is a quantitative approach using an associative research strategy. The quantitative approach was chosen because it allows for the collection of numerically measurable data, thus allowing for a more systematic and objective analysis [28]. Associative research strategies are used to explore the relationship between two or more variables, in this case independent variables (X) and dependent variables (Y). The population of this study is all employees from Micro, Small, and Medium Enterprises (MSMEs) operating in the Jakarta area. The sample was selected using a purposive sampling technique, where MSME employees who have worked for at least one year and are domiciled in Jakarta are considered relevant research subjects. The number of samples taken was as many as 100 respondents, which was considered representative enough for multivariate analysis using PLS-SEM [29].

Primary data was collected through filling out questionnaires online using Google Form. The questionnaire used refers to the Likert scale with a rating range from 1 to 5, where 1 indicates "Strongly Disagree" and 5 indicates "Strongly Agree". This approach was chosen because it allows the measurement of respondents attitudes, opinions, and perceptions towards the phenomenon studied by [30].

Data analysis was carried out in two main stages, namely measurement analysis (outer model) and structural analysis (inner model) using the Partial Least Square Structural Equation Modeling (PLS-SEM) method. Measurement analysis involves validity and reliability tests, including convergent validity, average variance extracted (AVE), and discriminant validity tests [31]. Meanwhile, structural analysis aims to test the hypothesis proposed in the study, by looking at R-square, hypothesis testing using the Bootstrapping method, and predictive relevance with Q2 values.

By using this approach, it is hoped that this study can provide a deep understanding of the relationship between the variables studied and provide valuable insights for the development of appropriate strategies in increasing engagement and job satisfaction among MSME employees in Jakarta [32].

3. RESEARCH METHOD

In this study, the majority of the respondents are male, making up 61.4% of the total participants, while 38.6% of the respondents are female. Among the participants, the most common level of education is a bachelor degree (S1), held by 78.2% of the respondents. Additionally, 16.8% of the respondents have completed a diploma (D3), and 3.5% have attended high school or vocational education. Only a small portion of the respondents, 1.5%, have completed Postgraduate Studies (S2) [33].

When considering age, the largest group of respondents is between 21 and 25 years old, accounting for 77.7% of the sample. The next largest group is aged between 26 and 30 years, comprising 20.8% of the respondents [34]. A small number of participants are older than 30 years, making up 1%, while only 0.5% of respondents are younger than 21 years.

In the test of the measurement model (outer model), 2 measurements are carried out, namely the reality test, the validity test.

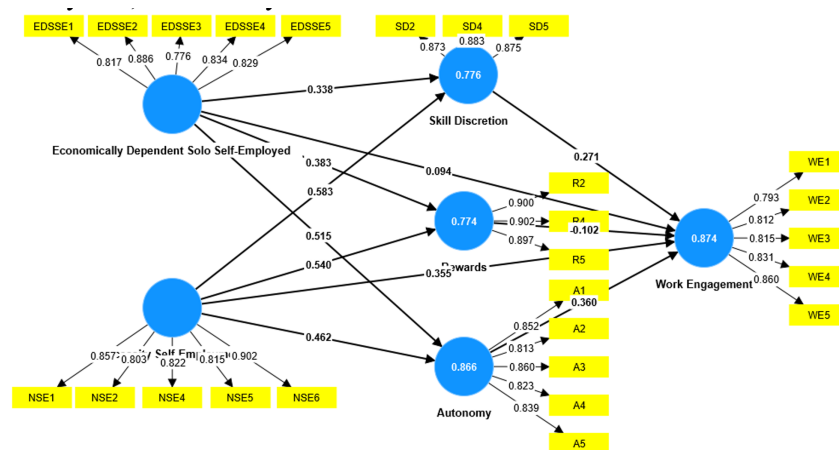


Figure 4. Actual Test Path Model

Based on Table 1, the results of the outer loading test indicate that all indicators in this study have a loading value >0.7 . This suggests that all indicator items are considered valid for the purposes of this study.

Table 1. Outer Loading Results

Items	A	EDSSE	NSE	R	SD	WE
A1	0.852					
A2	0.813					
A3	0.860					
A4	0.823					
A5	0.839					
EDSSE1		0.817				
EDSSE2		0.886				
EDSSE3		0.776				
EDSSE4		0.834				
EDSSE5		0.829				
NSE1			0.857			
NSE2			0.803			
NSE4			0.822			
NSE5			0.815			
NSE6			0.902			
R2				0.900		
R4				0.902		
R5				0.897		
SD2					0.873	
SD4					0.883	
SD5					0.875	
WE1						0.793
WE2						0.793
WE3						0.812
WE4						0.815
WE5						0.831
						0.860

Furthermore, the convergent validity analysis carried out after the loading factor is the AVE test. The AVE measurement is used to assess the validity of the convergent of the construct. As well as for the assessment of the AVE must be greater than 0.5.

Table 2. AVE Table

Indicator	BIRD
Autonomy	0.701
Economically Dependent Solo Self-Employed	0.688
Necessity Self-Employment	0.706
Rewards	0.810
Skill Discretion	0.770
Work Engagement	0.676

Results from Table 2. indicates that all variables have passed the threshold set for AVE, which is 0.5. Therefore the validity of convergence has been established.

Table 3. Discriminant Validity HTMT

Variable	Autonomy	Economically Dependent Solo Self- Employed	Necessity Self- Employment	Rewards	Skill Dis- cretion
Autonomy					
Economically Dependent Solo Self-Employed	0.802				
Necessity Self- Employment	0.884	0.811			
Rewards	0.882	0.628	0.755		
Skill Discretion	0.703	0.534	0.680	0.550	
Work Engagement	0.819	0.750	0.706	0.649	0.509

Based on the results in Table 3, it is known that all variables in this study have an HTMT value < 0.9. Therefore, the validity of discrimination can be established. Table 2 can be seen that the validity of discrimination has been achieved, where the value of each variable is below 0.9 but in general, all HTMT approaches detect the problem of the validity of discrimination so that it can be declared valid.

The next test is to test multicollinearity using Variance Inflation Factor. The threshold for VIF is 5, which if an indicator exceeds that value, it is evidence that there is multicollinearity, and indicates that the indicator is excessive or no longer necessary.

Table 4. VIF Inner Table

Variable	Autonomy	Economically Dependent Solo Self- Employed	Necessity Self- Employment	Rewards	Skill Dis- cretion
Autonomy	4.672				
Economically Dependent Solo Self-Employed	2.962	2.962			
Necessity Self- Employment	2.962	2.962	2.962		
Rewards				4.036	
Skill Discretion					4.220

Based on Table 4 it is known that the VIF values of all indicators are below 5, a threshold that means there is no multicollinearity. Thus, it can be concluded that the data in this study has been free from multicollinearity.

Table 5. Hypothesis Test Table (Path Coefficient)

H	Variable relationships	Path Coefficient	t-statistics	P-Value	Conclusion
H1	Economically dependent solo self-employed has a positive effect on skill discretion	0.338	3.518	0.000	Supported
H2	Economically dependent solo self-employed has a positive effect on Rewards	0.383	3.330	0.001	Supported
H3	Economically dependent solo self-employed has a positive effect on Autonomy	0.515	9.802	0.000	Supported
H4	Economically dependent solo self-employed has a positive influence on Work Engagement	0.094	0.929	0.353	Not Supported
H5	Necessity self-employment has a positive effect on Skill discretion	0.583	5.967	0.000	Supported
H6	Necessity self-employment has a positive effect on Rewards	0.540	4.888	0.000	Supported
H7	Necessity self-employment has a positive effect on Autonomy	0.462	8.516	0.000	Supported
H8	Necessity self-employment has a positive effect on Work Engagement	0.355	3.761	0.000	Supported
H9	Discretion skills have a positive effect on Work Engagement	0.271	2.101	0.036	Supported
H10	Rewards have a positive effect on Work Engagement	-0.102	0.793	0.428	Not Supported
H11	Positive autonomy towards Work Engagement	0.360	3.504	0.000	Supported
H12	Economically dependent solo self-employed has a positive effect on Work Engagement with Skill discretion as a mediating variable	0.092	1.660	0.097	Not Supported
H13	Economically dependent solo self-employed has a positive effect on Work Engagement with Rewards as a mediating variable	-0.039	0.741	0.459	Not Supported
H14	Economically dependent solo self-employed has a positive effect on Work Engagement with Autonomy as a mediating variable	0.185	3.188	0.001	Supported
H15	Necessity self-employment has a positive effect on Work Engagement with Skill discretion as a mediating variable	0.158	2.062	0.039	Supported
H16	Necessity self-employment has a positive effect on Work Engagement with Rewards as a mediating variable	-0.055	0.787	0.431	Not Supported
H17	Necessity self-employment has a positive effect on Work Engagement with Autonomy as a mediating variable	0.166	3.355	0.001	Supported

4. RESULT AND DISCUSSION

After processing the actual data of 160 respondents, all hypotheses were supported; Hypothesis 1 states that Economically dependent solo self-employed has a positive effect on Skill discretion has a Path coefficient value of 0.338 and a t-statistics value of $3.518 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H1 is supported.

The results of this study support the research of Stephan which found that economically dependent self-employed workers showed a higher level of skill flexibility compared to those with a more diverse client base. Similarly, the research of [8] identified a positive correlation between economic dependency and skill policy among single self-employed people in various industries. In addition, [35] highlight the importance of economic dependency in encouraging the development of skills and wisdom among self-employed workers. These studies emphasize the importance of the role of economic dependency in shaping the work dynamics and skill utilization of self-employed workers, and underscore their positive influence on skills policy.

Hypothesis 2 states that Economically dependent solo self-employed has a positive effect on Rewards having a Path coefficient value of 0.383 and a t-statistics value of $3.330 > 1.65$ and a p-value of $0.001 < 0.05$. Therefore, it can be concluded that H2 is supported.

The results of this study support the research of Kautonen which found that economically dependent self-employed workers reported higher levels of satisfaction with their income compared to workers with multiple clients. This economic dependence can lead to a deeper appreciation of financial rewards and a stronger sense of accomplishment. In addition, a single self-employed individual who is economically dependent can derive the intrinsic rewards of autonomy and mastery of their work. The research of [35] highlights that independent workers who feel economically dependent are more likely to engage in job-creating behaviors, which allows them to align job tasks with their preferences and strengths, resulting in increased intrinsic rewards such as enjoyment and satisfaction. In addition, single self-employed individuals who are economically dependent can receive recognition and praise from their clients, thus contributing to their sense of validation and value. This positive feedback can further increase their motivation and satisfaction with their work.

Hypothesis 3 states that Economically dependent solo self-employed has a positive effect on Autonomy has a Path coefficient value of 0.515 and a t-statistics value of $9.802 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H3 is supported.

The results of this study support the research of Richter and Welter which found that economically dependent self-employed workers reported greater autonomy in decision-making compared to those with a diverse client base. This autonomy stems from the need to navigate their work environment independently to maintain relationships with clients and secure future revenue. Additionally, single self-employed individuals who are economically dependent may have the freedom to choose projects and set their schedules, allowing them to align work with their preferences and priorities. The research of [36] highlights that economic dependency can empower self-employed individuals to exercise greater control over their work processes, thus leading to increased autonomy and flexibility.

Hypothesis 4 states that Economically dependent solo self-employed has a positive influence on Work Engagement has a Path coefficient value of 0.094 and a t-statistics value of $0.929 > 1.65$ and a p-value of $0.353 > 0.05$. Therefore, it can be concluded that H4 is not supported.

The results of this study do not support the research of Van Gelderen which found that economic dependence has a positive impact on work engagement among self-employed workers because it motivates them to invest more manpower and energy in their work to maintain relationships with clients and ensure future income. Additionally, single self-employed individuals who are economically dependent may feel a strong sense of belonging and responsibility for the results of their work, thus increasing their dedication and enthusiasm.

Hypothesis 5 states that Necessity self-employment has a positive effect on Skill Discretion with a Path coefficient value of 0.583 and a t-statistics value of $5.967 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H5 is supported.

The results of this study support the research of [8] which found that individuals who engage in entrepreneurship out of necessity often develop a diverse range of skills necessary to adapt to various tasks and roles, thus leading to an increase in skill wisdom. In addition, individuals who work independently out of necessity often face challenging and diverse tasks in their entrepreneurial ventures, requiring the utilization and refinement of various skills. Exposure to these diverse responsibilities increases their autonomy in skill dissemination and decision-making, thus contributing to greater skill wisdom. The research of Kautonen highlights

that need-driven entrepreneurs tend to perform more skill-enhancing activities compared to opportunity-driven entrepreneurs, thus further supporting the positive relationship between entrepreneurs due to skill needs and wisdom.

Hypothesis 6 states that Necessity self-employment has a positive effect on Rewards has a Path coefficient value of 0.540 and a t-statistics value of $4.888 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H6 is supported.

The results of this study support the research of Fossen and König which revealed that need-driven entrepreneurs often experience increased satisfaction with their income and financial rewards compared to their counterparts who work as wage workers. The increased appreciation of financial rewards may come from the autonomy and control over the income generation inherent in entrepreneurship. In addition, individuals who work independently out of necessity tend to get intrinsic rewards from their entrepreneurial ventures. Research by [30] shows that need-driven entrepreneurs often report higher levels of satisfaction and satisfaction in running their businesses, thus contributing to overall well-being and life satisfaction.

Hypothesis 7 states that Necessity self-employment has a positive effect on Autonomy with a Path coefficient value of 0.462 and a t-statistics value of $8.516 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H7 is supported.

The results of this study support the research of Kautonen which found that need-driven entrepreneurs often feel higher autonomy compared to traditional employees, because they have greater control over work schedules, decision-making processes, and business operations. In addition, individuals who work independently out of necessity often have the autonomy to run a business that aligns with their skills, interests, and values, allowing them to shape a professional path according to their preferences. This autonomy empowers individuals to take control of their careers and adapt to changing circumstances, leading to increased satisfaction and satisfaction. Additionally, entrepreneurship out of necessity encourages individuals to develop problem-solving skills and resources, as they navigate challenges and uncertainties independently. Research conducted by Welter and Richter highlights that need-driven entrepreneurs show a strong sense of ownership and responsibility for their businesses, thereby encouraging autonomy in decision-making and strategy implementation.

Hypothesis 8 states that Necessity self-employment has a positive effect on Work Engagement with a Path coefficient value of 0.355 and a t-statistics value of $3.761 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H8 is supported.

The results of this study support the research of [8] which found that individuals who engage in entrepreneurship out of necessity often show high levels of work engagement due to intrinsic motivation to succeed despite challenging circumstances. Additionally, individuals who work independently out of necessity typically have a strong sense of ownership and responsibility towards their endeavors, thus increasing their dedication and enthusiasm in their work. The research of Kautonen highlights that need-driven entrepreneurs tend to have a high commitment to their business, thereby increasing job engagement rates compared to other types of work. Entrepreneurship due to necessity provides individuals with opportunities for skill development and autonomy, which can increase a sense of competence and satisfaction in their jobs, thus contributing to higher levels of work engagement. This involvement is further strengthened by the meaningful relationships that individuals develop with their work and the sense of accomplishment that comes from overcoming challenges [2]. Hypothesis 9 states that Economically dependent solo self-employed has a positive effect on Rewards has a Path coefficient value of 0.271 and a t-statistics value of $2.101 > 1.65$ and a p-value of $0.036 < 0.05$. Therefore, it can be concluded that H9 is supported.

The results of this study support the research of Bakker and Demerouti which showed that employees who have greater autonomy and control over their job tasks, including the flexibility to use their skills, tend to experience higher levels of engagement. Moreover, the research of Petrou highlights that skill wisdom plays an important role in fostering a sense of mastery and achievement in employees, which is a key component of work engagement. When individuals have the opportunity to apply their skills and make meaningful contributions to their work, they will be more likely to feel motivated and invested in their tasks.

Hypothesis 10 states that Rewards have a positive effect on Work Engagement with a Path coefficient value of -0.102 and a t-statistics value of $0.793 > 1.65$ and a p-value of $0.428 > 0.05$. Therefore, it can be concluded that H10 is not supported.

The results of this study do not support the research of Harter which found that employees who felt adequate rewards and recognition for their contributions tended to be more engaged in their work. This highlights the importance of extrinsic rewards, such as monetary compensation and praise, in encouraging

engagement. In addition, intrinsic rewards, such as a sense of achievement and personal growth, also positively affect work engagement.

Hypothesis 11 states that positive autonomy towards Work Engagement has a Path coefficient value of 0.360 and a t-statistics value of $3.504 > 1.65$ and a p-value of $0.000 < 0.05$. Therefore, it can be concluded that H11 is supported. The results of this study support the research of [22] highlighting that when employees have the freedom to make decisions and choose how to perform their tasks, they tend to experience intrinsic motivation and engagement. In addition, autonomy fosters a sense of ownership and responsibility for the results of one work, further increasing engagement. A study by Baard emphasizes the importance of leadership that supports autonomy in encouraging engagement by empowering employees to take initiative and take control of their work processes.

Hypothesis 12 states that Economically dependent solo self-employed has a positive effect on Work Engagement with Skill discretion as a mediating variable having a Path coefficient value of 0.092 and t-statistics values of $1.660 > 1.65$ and p-values of $0.097 > 0.05$. Therefore, it can be concluded that H12 is not supported.

The results of this study do not support the research of Demerouti showing that employees who feel a higher level of skill discretion experience greater engagement, as they tend to feel motivated, competent, and absorbed in their tasks. In addition, skill discretion acts as a mediator in the relationship between economic dependence and employment.

Hypothesis 13 states that Economically dependent solo self-employed has a positive effect on Work Engagement with Rewards as a mediating variable having a Path coefficient value of -0.039 and a t-statistics value of $0.741 > 1.65$ and a p-value of $0.459 > 0.05$. Therefore, it can be concluded that H13 is not supported.

The results of this study do not support the research of Harter which shows that employees who feel adequate appreciation and recognition for their contributions tend to be more engaged in their work. This includes self-employed individuals who rely on positive feedback and financial stability to maintain motivation and commitment. In addition, rewards act as a mediator in the relationship between economic dependency and work engagement among solo self-employed.

Hypothesis 14 states that Economically dependent solo self-employed has a positive effect on Work Engagement with Autonomy as a mediating variable having a Path coefficient value of 0.185 and a t-statistics value of $3.188 > 1.65$ and a p-value of $0.001 < 0.05$. Therefore, it can be concluded that H14 is supported.

The results of this study support the research of Deci and Ryan which shows that employees who feel a high degree of autonomy experience greater intrinsic motivation and engagement, because they feel a sense of ownership and responsibility for the results of their work. In addition, autonomy acts as a mediator in the relationship between economic dependence and employment engagement among sole self-employed.

Hypothesis 15 states that Necessity self-employment has a positive effect on Work Engagement with Skill discretion as a mediating variable having a Path coefficient value of 0.158 and a t-statistics value of $2 > 1.65$ and p-values of $0.039 < 0.05$.

The results of this study support the research of Bakker and Demerouti which shows that employees with a high level of skill discretion experience greater engagement, because they feel empowered and competent in their job duties. In addition, skill wisdom acts as a mediator in the relationship between entrepreneurial needs and work engagement.

Hypothesis 16 states that Necessity self-employment has a positive effect on Work Engagement with Rewards as a mediating variable having a Path coefficient value of -0.055 and a t-statistics value of $0.787 > 1.65$ and p-values of $0.431 > 0.05$. Therefore, it can be concluded that H16 is not supported.

The results of this study do not support the research of Harter which shows that employees who feel adequate appreciation and recognition for their contributions tend to be more engaged in their work. This includes self-employed individuals who rely on positive feedback and financial stability to maintain motivation and commitment. A study conducted by [8] highlighted that rewards can partly explain the positive impact of entrepreneurial needs on work engagement, as individuals are motivated by the financial and intrinsic benefits associated with their work.

Hypothesis 17 states that Necessity self-employment has a positive effect on Work Engagement with Autonomy as a mediating variable having a Path coefficient value of 0.166 and a t-statistics value of $3.355 > 1.65$ and a p-value of $0.001 < 0.05$. Therefore, it can be concluded that H17 is supported by

The results of this study support the research of Deci and Ryan which shows that employees who feel a high degree of autonomy experience greater intrinsic motivation and engagement, because they feel a sense of ownership and responsibility for the results of their work. Furthermore, [2] highlight that autonomy can partly

explain the positive impact of entrepreneurial needs on work engagement, as individuals with greater autonomy will be better able to align their work with their preferences and values, leading to increased engagement.

5. MANAGERIAL IMPLICATIONS

The managerial implications of research investigating the influence of economically dependent solo self-employed and necessity self-employment on work engagement, with the variable intrinsic job resources as mediation, are important in the context of human resource management and career development in organizations and independent work environments. The results of this study can provide valuable insights for managers and leaders to understand how certain types of self-employment can affect the level of employee or worker work engagement. Managers can use these findings to design more effective strategies in providing workers with the intrinsic resources they need to improve work engagement and worker well-being.

6. CONCLUSION

This study demonstrates that both Economically Dependent Solo Self-Employed (EDSSE) and Necessity Self-Employment (NSE) significantly influence skill discretion, rewards, and autonomy, which in turn play a crucial role in enhancing work engagement. Specifically, EDSSE workers benefit from increased autonomy and skill discretion, while NSE workers report improvements in rewards, skill discretion, and autonomy, all contributing to higher engagement levels. These findings underline the importance of intrinsic job resources, such as autonomy and skill discretion, in fostering work engagement among self-employed individuals.

However, the study reveals that rewards did not show a significant effect on work engagement, either directly or as a mediator. This indicates that while external recognition and financial incentives are important, they may not be as effective in promoting long-term engagement as factors that empower individuals in their work, such as autonomy and skill discretion. The findings also emphasize that autonomy is particularly influential, as it positively mediates the relationship between both EDSSE and NSE with work engagement. This suggests that providing self-employed individuals with more freedom to manage their tasks and schedules can lead to higher motivation and job satisfaction.

For future research, it would be valuable to explore additional factors that could further enhance or hinder work engagement among self-employed workers, such as family support, financial independence, and psychological well-being. Additionally, expanding the research to include diverse industries or geographical regions could provide deeper insights into the broader applicability of these findings. Further studies could also consider demographic factors such as age, education, and work experience, and employ qualitative methods to better understand the personal experiences of self-employed individuals and their engagement levels.

7. DECLARATIONS

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7.2. Author Contributions

Conceptualization: DW; Methodology: JW; Software: CW; Validation: ME and JW; Formal Analysis: DW and CW; Investigation: DW; Resources: JW; Data Curation: CW; Writing Original Draft Preparation: MW and DW; Writing Review and Editing: JW and CW; Visualization: ME; All authors, DW, JW, CW, and ME, have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

REFERENCES

- [1] M. Obschonka, M. Stuetzer, A. Newman, C. B. Gibson, S. D. Gosling, P. J. Rentfrow, and J. Potter, "Corruption revisited: the influence of national personality, culture, and wealth," *Journal of International Business Studies*, vol. 54, no. 8, pp. 1577–1587, 2023.
- [2] B. N. Nikolaev, M. P. Lerman, C. J. Boudreaux, and B. A. Mueller, "Self-employment and eudaimonic well-being: The mediating role of problem-and emotion-focused coping," *Entrepreneurship Theory and Practice*, vol. 47, no. 6, pp. 2121–2154, 2023.
- [3] I. Geraldina and S. V. Sihotang, "Mengintegrasikan teknologi blockchain dalam pendidikan tinggi: Meningkatkan transparansi dan keamanan dalam kredensial akademik," *ADI Pengabdian Kepada Masyarakat*, vol. 5, no. 1, pp. 72–79, 2024.
- [4] A. H. Ramli *et al.*, "The mediator role of leader-member exchange in empirical test," *Jurnal Manajemen dan Pemasaran Jasa*, vol. 13, no. 1, pp. 127–136, 2020.
- [5] P. Pitriyani and A. Halim, "Pengaruh sikap kerja dan keterampilan kerja terhadap produktivitas kerja karyawan cv. meranti medan," *Ekonomi Bisnis Manajemen dan Akuntansi (EBMA)*, vol. 1, no. 2, pp. 162–167, 2020.
- [6] B. Oprea, L. Păduraru, and D. Iliescu, "Job crafting and intent to leave: the mediating role of meaningful work and engagement," *Journal of Career Development*, vol. 49, no. 1, pp. 188–201, 2022.
- [7] E. R. Rahayu, R. Raihan, Z. Ndlovu, S. V. Sihotang, N. Malika, and A. Fitriani, "Long term aging effects on polymer materials photovoltaic modules durability and safety," *International Journal of Cyber and IT Service Management*, vol. 4, no. 2, pp. 155–166, 2024.
- [8] D. Wach, U. Stephan, E. Weinberger, and J. Wegge, "Entrepreneurs' stressors and well-being: A recovery perspective and diary study," *Journal of Business Venturing*, vol. 36, no. 5, p. 106016, 2021.
- [9] C. Trevena, "The relationship between meaning, basic psychological needs, and motivation at work: A self-determination perspective," Ph.D. dissertation, Liberty University, 2024.
- [10] X. Jiang and Y. Wei, "Linking servant leadership to followers' thriving at work: self-determination theory perspective," *Frontiers in Psychology*, vol. 15, p. 1384110, 2024.
- [11] H. Ramdhan and S. Aripin, "Strategi digital untuk bisnis: Pendekatan praktis dan implementasi di industri 4.0," *ADI Bisnis Digital Interdisiplin Jurnal*, vol. 5, no. 1, pp. 34–40, 2024.
- [12] I. Toth, S. Heinänen, and K. Puumalainen, "Passionate and engaged? passion for inventing and work engagement in different knowledge work contexts," *International Journal of Entrepreneurial Behavior & Research*, vol. 27, no. 9, pp. 1–25, 2021.
- [13] K. Dai and Y. Wang, "Investigating the interplay of chinese efl teachers' proactive personality, flow, and work engagement," *Journal of Multilingual and Multicultural Development*, pp. 1–15, 2023.
- [14] E. Cabrera-Aguilar, M. Zevallos-Francia, M. Morales-García, A. A. Ramírez-Coronel, S. B. Morales-García, L. Z. Sairitupa-Sanchez, and W. C. Morales-García, "Resilience and stress as predictors of work engagement: the mediating role of self-efficacy in nurses," *Frontiers in Psychiatry*, vol. 14, p. 1202048, 2023.
- [15] M. M. Naqshbandi, I. Kabir, N. A. Ishak, and M. Z. Islam, "The future of work: work engagement and job performance in the hybrid workplace," *The Learning Organization*, vol. 31, no. 1, pp. 5–26, 2024.
- [16] B. Sypniewska, M. Baran, and M. Kłos, "Work engagement and employee satisfaction in the practice of sustainable human resource management—based on the study of polish employees," *International Entrepreneurship and Management Journal*, vol. 19, no. 3, pp. 1069–1100, 2023.
- [17] A. Davis, E. Hsu, and M. VanVuren, "Self employment, micro-entrepreneurship, and development," 2023.
- [18] Y. Wang, A. Derakhshan, and M. Azari Noughabi, "The interplay of efl teachers' immunity, work engagement, and psychological well-being: Evidence from four asian countries," *Journal of Multilingual and Multicultural Development*, vol. 45, no. 8, pp. 3241–3257, 2024.
- [19] D. Indiyati, U. Rahardja, U. Rusilowati, S. Millah, A. Faturahman, and A. Fitriani, "Enhancing human resources management with blockchain technology: A case study approach," in *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT)*. IEEE, 2024, pp. 1–6.

- [20] G. Mazzetti, E. Robledo, M. Vignoli, G. Topa, D. Guglielmi, and W. B. Schaufeli, "Work engagement: A meta-analysis using the job demands-resources model," *Psychological reports*, vol. 126, no. 3, pp. 1069–1107, 2023.
- [21] N. Zahari and M. Kaliannan, "Antecedents of work engagement in the public sector: A systematic literature review," *Review of Public Personnel Administration*, vol. 43, no. 3, pp. 557–582, 2023.
- [22] S. Grenier, M. Gagné, and T. O'Neill, "Self-determination theory and its implications for team motivation," *Applied Psychology*, vol. 73, no. 4, pp. 1833–1865, 2024.
- [23] R. A. Wismashanti, "Komunikasi dalam platform online crowdfunding: Tinjauan literatur sistematis," *Technomedia Journal*, vol. 8, no. 3, pp. 50–63, 2024.
- [24] J. Cieřlik and A. van Stel, "Solo self-employment—key policy challenges," *Journal of Economic Surveys*, vol. 38, no. 3, pp. 759–792, 2024.
- [25] A. A. Adelaja, C. A. O. Akinbami, T. Jiboye, and G. Ogbolu, "Students' intention towards self-employment: An application of elt theory on the effectiveness of entrepreneurial education types," *The International Journal of Management Education*, vol. 21, no. 2, p. 100738, 2023.
- [26] D. Sharma and C. K. Sahoo, "Examining the nexus of organizational support, entrepreneurial self-efficacy and self-employment intentions of technical education students in india," *Journal of Asia Business Studies*, 2025.
- [27] W. M. Lim, S. Bansal, S. Kumar, S. Singh, and P. Nangia, "Necessity entrepreneurship: a journey from unemployment to self-employment," *Global Business and Organizational Excellence*, vol. 43, no. 6, pp. 41–58, 2024.
- [28] N. De Vries, W. Liebrechts, and A. Van Stel, "Explaining entrepreneurial performance of solo self-employed from a motivational perspective," *Small Business Economics*, vol. 55, no. 2, pp. 447–460, 2020.
- [29] F. Halawa, E. N. Anggraini, and P. Yulianti, "The antecedents and consequences of work engagement on teacher: a systematic literature review," *Maker: Jurnal Manajemen*, vol. 9, no. 1, pp. 27–38, 2023.
- [30] D. D. Angreni and L. P. Mahyuni, "Examining the impact of hybrid work on employee performance and engagement on generation z in indonesia," *Quantitative Economics and Management Studies*, vol. 5, no. 6, pp. 1227–1240, 2024.
- [31] K. Indonesia, "Data dan statistik umkm indonesia," *Diakses pada*, vol. 10, 2024.
- [32] N. V. Orlova and D. V. Nikolaev, "Russian agricultural innovations prospects in the context of global challenges: Agriculture 4.0," *Russian Journal of Economics*, vol. 1, no. 8, pp. 29–48, 2015.
- [33] H. Zhao, G. O'Connor, J. Wu, and G. Lumpkin, "Age and entrepreneurial career success: A review and a meta-analysis," *Journal of Business Venturing*, vol. 36, no. 1, p. 106007, 2021.
- [34] A. Anastasya, "Data umkm: Jumlah dan pertumbuhan usaha mikro, kecil, dan menengah di indonesia," July 2023, diakses pada 27 Maret 2025. [Online]. Available: <https://ukmindonesia.id/baca-deskripsi-posts/data-umkm-jumlah-dan-pertumbuhan-usaha-mikro-kecil-dan-menengah-di-indonesia>
- [35] L. P. S. Sinambela, "Sarton. 2021," *Metodologi Penelitian Kuantitatif Teoretik Dan Praktik. Depok: PT Rajagrafindo Persada*.
- [36] A. Khairunnisa, K. Pranandari, and A. Avavidya, "Resiliensi dan work engagement pada agen asuransi," *Arjwa: Jurnal Psikologi*, vol. 1, no. 3, pp. 129–138, 2022.
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