

INFLUENCE TRAINING , UTILIZATION INFORMATION AND COMMUNICATION TECHNOLOGY (ICT), AS WELL AS SELF -EFFICACY ON EMPLOYEE PERFORMANCE OF NUTMEG UMKM IN NORTH SULAWESI PROVINCE

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Abstract

In the era of globalization and digital transformation, employee performance is a key factor in enhancing business competitiveness and sustainability, particularly in the Micro, Small, and Medium Enterprises (MSMEs) sector. This study aims to analyze the influence of training, information and communication technology (ICT) utilization, and self-efficacy on the performance of nutmeg MSME employees in North Sulawesi, Indonesia. Using a quantitative explanatory research design, data were collected from 150 respondents and analyzed using Structural Equation Modeling (SEM) with LISREL 8.80. The results show that training (t-value = 15.71; path coefficient = 0.94), ICT utilization (t-value = 13.63; path coefficient = 0.88), and self-efficacy (t-value = 13.08; path coefficient = 0.82) all have a significant and positive effect on employee performance. The overall model fit is good, with GFI = 0.93, RMSEA = 0.078, CFI = 0.91, and NFI = 0.94.

The novelty of this research lies in its empirical focus on the nutmeg-based MSME sector in eastern Indonesia—a strategic yet understudied area with unique socio-geographic and resource characteristics. Unlike previous studies that predominantly examined large-scale industries or included mediating variables such as innovativeness, this study offers a direct-effect model that highlights practical, measurable interventions. The findings contribute to theoretical development in HRM literature and provide actionable recommendations for policymakers and local business stakeholders aiming to improve MSME competitiveness through workforce enhancement strategies.

Keywords : *training, efficacy self, performance, nutmeg.*

1. Introduction

In the era of globalization and digitalization moment this, performance employee be one of factor the key to success Power competitiveness and sustainability business, including in the Micro, Small and Medium Enterprises (MSMEs) sector. MSMEs are bone back economy in many developing countries, including Indonesia. Based on data from the Ministry of Cooperatives and SMEs (2023), MSMEs in Indonesia contribute more from 60% to Product Gross Domestic Product (GDP) and absorb

about 97% of power Work national. In North Sulawesi Province, MSMEs operating in the sector agriculture and processing results earth like commodity nutmeg, play role strategic in increase income society and encourage development area.

However thus in face increasingly challenging market competitive, SMEs need do transformation especially in aspect management source Power human. One of the aspect important in increase productivity and power MSME competitiveness is improvement performance employees, who do not only determined by internal factors such as motivation and competence, but also by factors external like training, utilization technology information and communication (ICT), efficacy self, and innovation individual.

Study previously show that training has influence significant to improvement ability work and productivity employees. According to Noe (2017), training is a systematic process For increase knowledge, skills and attitudes employees to be able to operate task in a way effective. This is reinforced by studies from Wibowo (2020) who stated that proper training target can increase understanding to work and repair quality results Work.

In addition to training, utilization Information and Communication Technology (ICT) becomes element important in increase efficiency operational of MSMEs. The use of ICT allows process automation, speed up taking decisions, and expand market access. According to Davis (1989) in the Technology Acceptance Model (TAM), perception to convenience the use and benefits of ICT can influence adoption technology in place work. A study by Astuti et al. (2021) revealed that ICT integration in UMKM business processes significant increase performance operational and innovation service.

Other factors that are not lost important is efficacy self -efficacy, namely belief individual to his ability in finish task or face challenge Work. Bandura (1997) stated that efficacy selfplay a role as predictor main in determine how much big effort expended somebody in reach goals. Individual with efficacy selftall tend own strong motivation, persistent face obstacles, as well as capable take decision in a way right. In the context of MSMEs, this This become important remember limitations source Power demand employee for more independent and flexible in Work.

Next, innovation individual or trend somebody in creating and implementing new ideas, as well as influencing quality and effectiveness performance employees. Rogers (2003) in theory diffusion innovation state that innovative individual tend more fast adapt to change and have ability for see opportunity new. Research by Susanto & Meiryani (2022) shows that innovation contribute direct to improvement performance employees, especially in environment dynamic work that requires breakdown problem in a way creative.

However, some big study previously Still limited to companies big or sector industry scale big, while study towards MSMEs in particular sector nutmeg in eastern Indonesia is still very minimal. In fact, the conditions geographical, cultural work, and limitations source power in the area like North Sulawesi has different characteristics and require contextual approach in increase performance employee.

Based on background behind said, research This aiming for analyze influence training , utilization of ICT, efficacy self, and innovation to performance nutmeg UMKM employees in North Sulawesi Province. Research This expected can give contribution theoretical to performance model development employees in the MSME sector as well as give recommendation practical for perpetrator business and maker policy in develop improvement strategies Power competition business local.

2. THEORETICAL BASIS

1. Training

Training is a structured process designed For increase competence employee in carry out tasks work . According to Noe (2017), training is effort systematic For help employee to obtain knowledge , skills , and behaviors required For operate work in a way effective . In the context of MSMEs, training be one of intervention important For increase capability employees who are generally Not yet own background behind professional or adequate formal education .

Research by Wibowo (2020) shows that proper training target can increase efficiency work, lower error operational, and strengthen satisfaction work. This is in line with findings Arikunto (2019) who emphasized that training play a role as one of the determinant main in increase HR productivity, especially in the informal sector such as MSMEs.

2. Utilization Information and Communication Technology (ICT)

Information and Communication Technology has change in a way drastic method organization operating. In the context of MSMEs, ICT plays a role important in speed up channel work, improve market access, and optimizing service customer. Davis (1989) through the Technology Acceptance Model (TAM) explains that two factors main influencing factors reception technology are perceived ease of use and perceived usefulness.

Research by Astuti et al. (2021) concluded that MSMEs utilize ICT in their business processes show improvement significant in matter effectiveness work and innovation. Likewise, research by Santosa and Wahyuni (2022) in the sector manufacturing small find that adoption digital systems have an impact positive to efficiency time and quality internal communication between employee.

However, in implementation, challenges like limitations infrastructure, low digital literacy, and resistance to change often become obstacle main. Therefore that, the use of ICT in MSMEs is not only need device technology, but also readiness source Power man for adopt it .

3. Self-Efficacy

Draft efficacy selfintroduced by Albert Bandura (1997) as belief individual to his ability in organize and implement necessary actions for reach objective certain. In the world of work, efficacy self is factor psychological important that influences behavior, motivation, and performance individual.

Research by Luthans et al. (2007) in development of psychological capital states that

efficacy selfplay a role important in increase trust selfemployee for face challenges and solve task optimally. Another study by Herlina (2020) in the sector MSME retail also found that employee with level efficacy selftall tend more productive, initiative and adaptive to.

Efficacy self play a role as a psychological filter that regulates How somebody look at challenge work, how much hard they trying, and how they respond failure or pressure on the spot work. With Thus, efficacy self contribute direct to achievement performance.

4. Innovation

Innovation refers to the extent to which an individual show behavior creative, trying matter new, and create original ideas in context work. Rogers (2003) in Diffusion of Innovations state that individual innovative own trend more tall For experiment, take risk, and become agent change in a system social.

In organizations, innovation is very valuable. especially in demanding situation solution new and improved sustainable. According to study from Susanto & Meiryani (2022), innovation employee contribute to the improvement work process effectiveness, speed taking decisions, and abilities adapt to market needs.

For MSMEs, innovation is superiority crucial competitiveness. Innovative employees can help create product or service new, improve work processes, and provide creative ideas that are capable increase efficiency and satisfaction customer.

5. Employee Performance

Employee performance is results work achieved by someone in carry out task in accordance with not quite enough the answers given. According to Robbins and Judge (2017), performance Work reflect effectiveness and efficiency individual in finish assignment. In literature management source Power human, performance employee influenced by various factors, both internal (motivation, attitude, competence) and external external (environment) work, training, and technology).

In the UMKM environment, performance employee become determinant main productivity and growth business, especially Because scale small organization make contribution individual become more impact. A study by Fitriani and Nurhadi (2021) confirmed that improvement training, efficacy self, and ability adaptation to technology in a way significant influence achievement performance UMKM employees in the sector agriculture and trade.

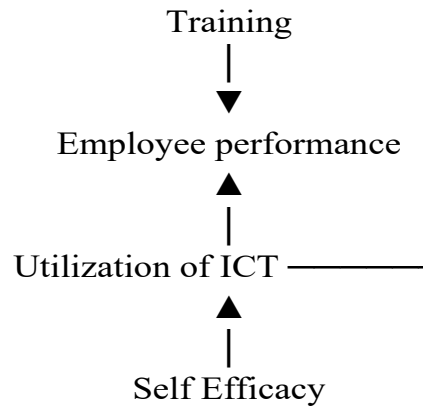
In research this, performance employee analyzed based on indicator like quality work, quantity results, accuracy time, ability adapt, and level initiative, which is the whole reflect productivity and contribution real to objective organization.

3. CONCEPTUAL FRAMEWORK AND HYPOTHESIS

Conceptual Framework of Research

Based on the description of the background, problem formulation and research objectives, the conceptual framework of the research can be described as follows:

Figure 3.1



Research Hypothesis

Based on the conceptual framework above and the results of the literature review, the hypothesis proposed in this study is as follows:

- H1: Training influential positive and significant to performance nutmeg UMKM employees in North Sulawesi Province. *Theoretical basi*: Training capable increase competence technical and non- technical, which ultimately impact on productivity and quality results work (Wibowo, 2020).
- H2: Utilization technology information and communication (ICT) influence positive and significant to performance. *Theoretical*: The use of ICT accelerates channel, improve data, as well as strengthen efficiency and effectiveness communication inter-section (Astuti et al., 2021).
- H3: Efficacy self influential positive and significant to performance. *Theoretical basis*: Employees who have efficacy self tall tend show, persistence, and belief in finish tasks work (Luthans et al., 2007).

4. RESEARCH METHODS

Study This use approach quantitative with type study explanatory. The main purpose from study This is for test influence direct from training, utilization technology information and communication (ICT), and efficacy self to performance employees in business micro, small, and medium enterprises (MSMEs) of nutmeg in North Sulawesi Province. **Research** This No use intervening variables, so that connection intervariable tested in a way direct.

Population in study This is all over active nutmeg UMKM employees in North Sulawesi working in 2024. With use purposive sampling technique, obtained 150 respondents who met the requirements criteria: (1) has work at least one years in the UMKM, (2) ever follow training in one year lastlya, and (3) have experience using ICT in operate work.

Instrument data collection using questionnaire based on Likert scale 1–5 (Sugiyono. (2016). Validity and reliability instrument tested using Confirmatory Factor Analysis (CFA) and Cronbach's Alpha. Testing hypothesis done with Structural Equation Modeling (SEM) method based on Partial Least Square (PLS) using SmartPLS 4.0

software (Gozali,2016)

Variables in study This is:

- Training (X1): measured through indicator relevance material, quality instructor, and frequency training.
- Utilization of ICT (X2): measured through indicator frequency use, convenience usage, and relevance ICT applications.
- Efficacy (X3): measured through belief self in finish tasks, abilities overcome challenges, and perceptions to effectiveness self .
- Employee Performance (Y): measured through productivity work, accuracy time, and quality results Work.

5. RESEARCH RESULT ANALYSIS AND DISCUSSION

Research result

1. Description of Research Variables

In research this, the interval range for every variable counted with use the formula that has been explained previously. The interval range used is 0.8, which yields category mark for every variables studied. The following is results categorization based on score interval For variables study:

Table

5.5

Range and Category Values

Score	Score Interval	Category
1	1.00-1.80	Very Low / Very Bad
2	1.81-2.60	Low / Bad
3	2.61-3.40	High Enough / Good Enough
4	3.41-4.20	High / Good
5	4.21-5.00	Very High / Very Good

Source: Zikmund, William G., et. al (2013)

2. SEM Model Data Testing (Lisrel)

Analysis model testing is done using Structural Equation Model (SEM) with sample as many as 150 respondents. The variables tested covering Training, Utilization Technology, and Self-Efficacy that Influence the Performance of Nutmeg Employees in North Sulawesi.

a. Testing Hypothesis Structure of Equation-1 Research Results

Testing done with use Confirmatory Factor Analysis (CFA) analysis for test model suitability, validity, and reliability of the model. The results of the model test show that the hybrid model (full model) has size good fit, as shown in Table 5.6 below:

Table 5.6 Overall Model Fit
Measure (Hybrid Model) SEM

Indicator	Expected Size	Estimation Results	Conclusion
GFI	GFI > 0.90	0.93	Good Fit
RMSEA	RMSEA < 0.08	0.078	Good Fit
NNFI	NNFI > 0.90	0.91	Good Fit
NFI	NFI > 0.90	0.94	Good Fit
AGFI	AGFI > 0.90	0.92	Good Fit
RFI	RFI > 0.90	0.93	Good Fit
IFI	IFI > 0.90	0.92	Good Fit
CFI	CFI > 0.90	0.91	Good Fit

Source: Processing Results with LISREL 8.80, 2024

With Thus, the hybrid model own very good fit and can to be continued for analysis more carry on.

b. Testing Hypothesis Structure of Equation-2 Research Results

Testing model structure is done For evaluate connection between latent variables (exogenous and endogenous). The results of the goodness-of-fit test the whole model shows very good value. In Figure 5.7 and Figure 5.8 below this, looks that connection between variable show significant influence.

3. Testing Hypothesis

After analysis measurement and structural done, steps furthermore is test hypothesis that has been submitted in study This.

a. Influence Training, Utilization of ICT and Self-Efficacy Towards Innovativeness

Hypothesis This test whether training, ICT utilization, and efficacy self influential to innovation. Hypothesis test results show that:

- Training influential significant to innovation with t-value = 15.71.
- The use of ICT has an impact significant to innovation with t-value = 13.63.
- Efficacy self influential significant to innovation with t-value = 13.08.

b. Influence Training, Utilization Technology, Self -Efficacy, and Innovation on Employee Performance

Testing For hypothesis This test influence direct and indirect direct from variables the to performance employees. Analysis results show that:

- Training influential significant to performance employee with t-value = 15.71.
- Utilization Technology influential significant to performance employee with t-value = 13.63.
- Efficacy self influential significant to performance employee with t-value = 13.08.
- Innovation also has an impact significant to performance employee with t-value = 17.39.

Table

5.9

Hypothesis Test Results

Hypothesis	Description Hypothesis	Path Coef./R2	t-value/F-value	t- criterion /F-criterion	Statistical Conclusion
H1	Training influential to performance Employee	0.94	15.71	1.96	H0 is rejected , Ha is accepted
H2	Benefits Technology influential to performance Employee	0.88	13.63	1.96	H0 is rejected , Ha is accepted
H3	Self- Efficacy is influential on Employee Performance	0.82	13.08	1.96	H0 is rejected Ha is accepted
H4	Training, Benefits Technology and Self-Efficacy influence on Employee Performance	0.59	8.49	3.77	H0 is rejected, Ha is accepted

Source : Data Processing Results, 2024

4. Influence Direct and Indirect

Study it also analyzes influence direct and indirect direct from training, utilization technology, efficacy self, and innovation to performance employee.

Table

5.10

Size of Influence Direct and Indirect On Employee Performance

Influence	Direct (L)	Indirect (TL) Through Innovation	Conclusion
Training → Employee Performance	$(0.82)^2 = 0.672$	$0.94 \times 0.96 = 0.902$	$L < TL$
Benefits Technology → Employee Performance	$(0.80)^2 = 0.640$	$0.88 \times 0.96 = 0.845$	$L < TL$
Efficacy → Employee Performance	$(0.82)^2 = 0.672$	$0.85 \times 0.96 = 0.816$	$L < TL$

Source: Data Processing Results, 2024

6. DISCUSSION

1. Influence Training on Employee Performance

Training is one of very important factor for increase performance employees. Research results show that training own influence significant positive to performance employees of Nutmeg UMKM in North Sulawesi. The most prominent indicator is facility available training for MSME actors, even though there is aspects that need to be considered be noted, namely materials prepared by the instructor. This is show that facility good training greatly supports the learning process, which in turn will increase

productivity and quality performance employee.

Good training can increase skills and knowledge employee, help they for more Ready in face challenge work everyday. Therefore that, UMKM needs notice aspect facilities and quality material training to be able to give more impact significant to performance employee.

2. Influence Utilization Technology on Employee Performance

Utilization technology own role important in increase performance employees, especially in this digital era. Based on research data, the utilization of technology categorized well, with use device hardware that dominates, even though There is some areas that need fixed, such as IT level and investment decisions. Employees who have access to device good technology can Work more efficient and effective. Use the right technology can facilitating the communication process, data processing, and improving efficiency operational.

However, attention more need given to the aspect IT level and investment decisions for ensure that employee can utilise technology in a way maximum. The right investment in technology will give more impact big to performance employees, improve productivity, and encourage results more work Good.

3. The Influence of Self-Efficacy on Employee Performance

Efficacy yourself, or belief employee to ability self they for finish tasks, also have significant influence to performance. In research this, efficacy self categorized well, with the most dominant indicator is experience as motivation myself, even though Still There is other indicators that need to be considered repaired, namely high expectations to goals. Employees who feel believe self with his ability more tend for take initiative, work more hard, and committed to the task given.

Improvement efficacy self can push employee for have a sense of responsibility more answers big to work they. This is show that positive experience can strengthen motivation yourself and in the end contribute to improvement performance.

4. Training, Utilization Technology, and Self-Efficacy Together On Employee Performance

Although study This No using intervention (Innovativeness), results data analysis shows that training, utilization technology, and efficacy self in a way together own significant influence to performance employees. Third factor This each other interact for create better conditions Good for employee in reach optimal performance.

- Good training give employee more skills and knowledge Good For carry out task they
- Utilization technology give support for work processes with speed up and simplify access information.
- Efficacy self strengthen motivation and confidence self employee in face challenge.

Together, the three factor This to form strong foundation for increase performance employees of Nutmeg UMKM in North Sulawesi. Effective training, use of optimal technology , and confidence high self will produce performance more employees

well, especially in the contextual performance dimension, such as showing initiative, which is very important for reach objective organization.

7. CONCLUSION

1. Training Influential Positive and Significant On Employee Performance

Training is proven influential positive and significant to performance employees of Nutmeg UMKM in North Sulawesi Province. This show that improvement quality training will impact straight to the upgrade performance employees. The dimension that best reflects training is material (P2), with indicator material complete (P21), which shows that employee more capable Work in a way efficient and performing Good when material training arranged with good and comprehensive.

2. Utilization Technology Influential Positive and Significant On Employee Performance

The use of technology has also been proven influential positive and significant to performance employees of Nutmeg UMKM in North Sulawesi. This indicates that utilization more technology Good will increase productivity and effectiveness Work employees. Use more technology sophisticated and integrated give convenience for employee in operate task daily they.

3. Self- Efficacy Has a Positive and Significant Influence On Employee Performance

Self -efficacy, which refers to the belief employee to ability self they, it is proven influential positive and significant to performance. Employees who have efficacy a better self tall tend more believe self in face challenge and take initiative, which in turn increase performance they in work.

4. Training Utilization Technology, and Self-Efficacy Together Influential Positive and Significant On Employee Performance

Training, utilization technology, and efficacy self in a way together influential positive and significant to performance Nutmeg UMKM employees in North Sulawesi with mark coefficient determination (R^2) of 88%. This is show that third variable the contribute big in increase performance employees, with the most dominant training, especially in the dimension material (P2), which facilitates improvement performance in a way significant.

5. Innovation Has a Positive and Significant Influence On Employee Performance

Innovation, although No used as intervening variable, fixed show significant influence to performance employees. This means that more employees innovative in face problems and create solution new will own more performance good. In case this, active employees look for method Work new and more Well, as seen in the search out new working method indicator, it tends to increase performance they.

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