

The Effect of Competence and Organizational Commitment on Work Productivity of Indonesian Manufacturing Industries

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Abstract. The aim of this study is to see how competence and organizational commitment affect employee productivity. We used the inferential verification technique, which is a strategy employed by researchers to assess the validity of presented hypotheses by gathering actual data from the field of Indonesia's industries. A total of 300 personnel from Indonesia's cable and electrical industries were purposefully chosen as responders. We used Structural Equation Modelling (SEM) analysis, aided by the LISREL 8.80 software, to test the hypotheses. The study's findings are as follows: (1) there is a positive and significant influence of competence ($\beta = 0.30$) on the work productivity of employees; (2) there is a positive and insignificant influence of organizational commitment (β = 0.09) on the work productivity of employees; and (3) there is a positive and significant influence of organizational commitment ($\beta = 0.50$) on the work productivity of employees Indonesia's industries, (4) Organizational commitment has a mediating function in the effect of competence (t = 4.15) on job productivity of employees in Indonesia's industries. A limitation of this study is that the survey only focused on Indonesia's cable and electricity industry plants and the tactical level management of an organization. The study's findings contribute to boosting organizational commitment and job competence that can boost employee productivity in Indonesia's industries. Due to its relatively rapid economic development, Indonesia is extremely appealing to international investors, particularly in the industrial sector. However, Indonesia must boost its manufacturing sector in order to attract more foreign investors. Also, this study is an empirical investigation, and its results can be generalized to similar industrial establishments.

Keywords: Competence; Employee productivity; Manufacturing industries; Organizational commitment; Productivity

1. Introduction

Indonesia has a high attractiveness of foreign investors to invest in Indonesia, where these investors are easily influenced by some issues related to politics, law, and employment that are currently trending. The size of the domestic market with relatively high profits, when compared to other countries, is very attractive for foreign business players to invest their funds in the manufacturing industry today. Indonesia is still one of the investment destinations due to relatively high economic growth. Indonesia must make improvements in the infrastructure sector to support the growth of the manufacturing industry in the real sector, among others; roads and transportation facilities, State

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Electricity Company (PLN) electricity, State Gas Company (PGN), telecommunications business such as Telkom and Indosat, and infrastructure, such as facilitating licensing, legal certainty and political stability, are all very important in attracting investors. According to Almuntadzar (2021) and Haryani (2014), the Director of Productivity and Entrepreneurship of the Indonesian Ministry of Manpower and Transmigration, said that there are four strategies to increase labor productivity: 1) Structuring the management bureaucracy to improve the business climate. 2) Technological innovation, increasing capital productivity by following the latest and most effective technological developments. 3) Improving the quality of human resources so that HR productivity increases by improving the quality of institutions/institutions that apply tools, techniques, approaches, and methodologies, increase productivity, and improve the quality of instructors, practitioners, and productivity consultants. 4) Developing a productive culture, including work discipline, teamwork, performance improvement, competency improvement, and others.

Several previous studies that researchers took as reference materials have research results that can support the results of this study, including Sutarman (2022) finding that competencies that include intellectual, emotional, and social competencies have a positive and significant effect on work productivity. Organizational commitment, which includes affective, continuous, and normative commitment, positively and significantly affects work productivity. Organizational commitment needs to be increased by providing training, responsibility, and dialogue. Prihantari (2019) states that there is a positive and significant influence as well as simultaneous or partial between compensation and competence on employee commitment; this means that compensation and competence have a role, either simultaneously or partially, in achieving employee commitment. This study found that the characteristics of managers are balanced with the skills of managers, more effective in increasing employee productivity. A positive correlation exists between the manager's competence variable and employee productivity (Askar, Alni, and Suryo, 2021; Berawi *et al.*, 2020).

The era of economic globalization, which is accompanied by the rapid development of technology, has an impact on business competition and changes in the business environment that is very fast (Burova *et al.*, 2021). There are three challenges faced by entrepreneurs and industry in this era of globalization and this millennium era, namely, the business world is changing so fast, uncertainty, and competition is very tight (Grishunin *et al.*, 2020). Products manufactured in the country today, as soon as they leave the factory, directly compete with products from abroad; this causes rapid obsolescence of production facilities and machinery, short product life cycles, and lower profit margins (Garad *et al.*, 2021).

Indonesia faces productivity challenges in order to be able to compete with other countries that are members of the Asian Economic Community (Legowo and Indiarto, 2021; Yasin, 2021). This research was conducted on managerial-level employees in cable and electricity industrial companies in Indonesia; the role of managers is very important in an effort to increase company and employee productivity. One of the important tasks and roles of managers is supervision, a manager must try to ensure that the company moves according to the vision and mission that has been set, and if there is a deviation, the manager tries to find the cause and make improvements. Common symptoms of why the supervisory and controlling function needs to be carried out include the phenomenon of declining employee productivity, declining sales levels, wasting company finances, and others. This study focuses on the main problem, namely the problem of employee

productivity in the Indonesian cable and electricity industry which is still low and fluctuations; the managerial role is very important in an effort to increase work productivity.

2. Hypotheses Development

2.1. Organizational commitment and employee work productivity

Work productivity is the outcome ratio divided by the resources used, which means that if employees work with high productivity, the company will benefit. Every profit and company progress must be known and felt by employees so that employees feel they have and are responsible if the culture is positive. Once this is established, the organizational commitment will be strong, and employees will be loyal, have a sense of belonging, and take responsibility for the firm. According to (Eliyana, 2019; Zurnali, 2010), there are various characteristics of organizational commitment, including the willingness to do one's best for the company and the willingness to work hard as a member of the organization is the foundation for enhancing work productivity. According to the study's findings (Qureshi, 2019; Osa and Amos, 2014), employee commitment is important for organizational productivity. Employee productivity is significantly influenced by organizational commitment, which includes factors such as improved organizational performance and effectiveness.

Meanwhile, (Cooke, 2019; Dixit and Bhati, 2012) reported on study findings that firms must ensure high employee engagement by adopting continual efforts to sustain and grow staff productivity. Based on some of the findings of past research, it is possible to state that organizational commitment is a kind of performance improvement, or continuous improvement, undertaken in an effort to raise staff productivity. As a result, it may be assumed that organizational commitment affects employee job productivity (Naruetharadhol *et al.*, 2021).

H1: There is a positive impact of organizational commitment on employee work productivity

2.2. Competence and employee work productivity

Competence is defined as employees' knowledge, skills, and work attitude in carrying out their duties; if employees have high competence, it will undoubtedly have an impact on increasing production results and work productivity because these employees can complete tasks quickly, accurately, and meet the set targets (Mudzar and Chew, 2022). According to (Ali, 2020), task achievement is one of the categories of work competencies, namely competencies related to performance demonstrated in results orientation, managing performance, influencing, initiative, production efficiency, flexibility, innovation, quality, continuous improvement, and technical expertise. According to (Saputra, Bagia, and Suwendra, 2016), intellectual competence has a good influence on employee productivity, whereas competence in reading and writing information affects boosting job productivity. Compared to manager abilities, a study conducted by (Fenizia, 2022) discovered that the manager's character may provide attention to deciding staff productivity. Based on the preceding research's description, it is possible to conclude that job competency influences employee work productivity. As a result, it may be assumed that competence affects employee job productivity (Garad *et al.*, 2022).

H2: There is a positive impact of competence on employee work productivity

2.3. Competence and organizational commitment

Employees must be competent in order to do their work duties. Employees with high levels of competency will improve their job performance and productivity. Companies that

observe an improvement in employee productivity will be more dedicated and willing to reward them. According to (Hanaysha, 2018), one of the fundamental traits influencing a person's competence is the attribute, their consistent reactions to circumstances, meaning the instinct that can consistently respond swiftly and accurately to a scenario and the information received. A manager can ensure long-term and sustainable performance; this demonstrates a management's dedication to the organization (Nugraha *et al.*, 2022).

Meanwhile, (Wijethilake, 2019) said that a personal characteristic is an individual's internal competency that relates to how individuals think, feel, learn, and evolve. If an individual feels fulfilled in his personal traits, he will be more committed to the business. According to (Fadli, Fadili, and Kartawijaya, 2012), work competence positively and significantly affects work commitment. It is explained that employees can work with insight and make decisions, easily adapt and socialize, and affect company success, loyalty, and engagement, so they are committed to the organization. As a result, it is reasonable to conclude that work competency impacts organizational commitment.

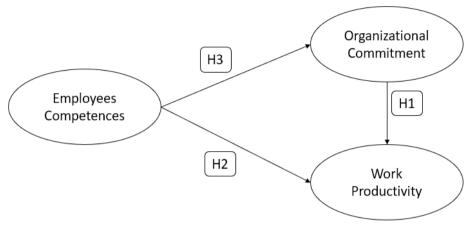
H3: There is a positive impact of competence on organizational commitment

2.4. Organizational commitment, competence, and employee work productivity

Increased productivity will be attained if employees and the firm commit strongly. So, organizational commitment is employed to mediate, reinforce, and evaluate research by functioning as an intervening variable. Employees' organizational commitment is their willingness to stay and work for the firm (Wardak and Behgam, 2021). A feeling of identity or belief in business principles, engagement or willingness to achieve the best for the organization, loyalty or want to stay a member of the firm are all examples of organizational commitment (Supriadi *et al.*, 2020; Sahni, 2019). Work productivity rises if there is a strong commitment to the organization. Increased employee productivity must be supported with increased employee competency to support their job. Work competence is an employee's capacity to carry out their job obligations. Work competencies include knowledge, abilities, and attitudes. If an employee has high competence, he can do his work more quickly, accurately, and with quality. As a consequence, his labor will provide better and more outcomes, resulting in higher work productivity (Fatmawati and Garad, 2023).

According to the Australian National Training Authority (Judisseno, 2013), competence is the ability to carry out duties and obligations based on expected job standards; stating competence is defined as basic characteristics such as knowledge, skills, and behavior that individuals and teams must possess to complete the work in order to obtain the best results. Hidayat, Alwi, and Setiawan (2017) explain competence as knowledge, skills, and abilities. Meanwhile, (Palan, 2007) competence refers to the factors that underpin conduct and define the motivations, personal attributes, self-concept, beliefs, knowledge, or skills brought by someone who performs well. According to (Soomro, 2019; Sumardjo, 2011), competence and organizational commitment have a considerable favorable influence on job productivity. According to a study by Sudiardhita (2013), the simultaneous impact of remuneration and competence factors on organizational commitment may be explained by the high and low levels of compensation and employee competence (Al-Ansi, 2022; Nugraha *et al.*, 2022). As a result, it may be assumed that organizational commitment plays a role in the effect of competence on employee job productivity.

H4: There is a mediating role of organizational commitment in the influence of competence on employee work productivity.



The framework of research and its components are illustrated in figure1.

H4: Competence \rightarrow Commitment Organizational \rightarrow Productivity

Figure 1 Conceptual Model Linking Organizational Commitment, Competence, and Employee Productivity

3. Method

3.1. Research design and unit analysis

This study employs quantitative research by establishing trustworthy and valid research instruments to investigate the influence of work competence and organizational commitment on the work productivity of workers in Indonesia's cable and electricity industries. The factors in the research were assessed using tools that used a Likert scale of 1 to 5. The rating scale ranged from 'strongly disagree' to 'strongly agree.' A total of 300 personnel from Indonesia's cable and electrical industries were purposefully chosen as responders. Researchers acquired data by distributing questionnaires directly (in person) and indirectly (through social media).

Questionnaires of studies were adopted from previous studies, including Organizational Commitment (Al-Ansi, Rahardjo, and Prasetya, 2015; Commeiras and Fournier, 2001), Competence (Giromini *et al.*, 2016; Faria *et al.*, 2006), and Employee productivity in Indonesian Industries (Al-Ansi *et al.*, 2023; Takii, 2005; Takii and Ramstetter, 2005). Organizational commitment was measured by nine items, competence was measured by six items, while employee productivity in Indonesian industries was measured by nine items.

3.2. Data Screening and Analysis

The questionnaire was entirely filled out based on the survey delivered to 300 respondents. Structural Equation Modelling (SEM) was used in the design of this study. The LISREL version 8.80 program used to analyze data and answer hypotheses was utilized as the statistical tool. The Sobel Test Calculator formula was used to examine the mediation model. Validity test result based on Fit Model is shown in Table 1.

The goodness of fit (GOF) approach is used to test the indicators that comprise the variables. The measuring model uses convergent validity to determine whether or not the indicators are valid. The Maximum Likelihood Estimation (MLE) approach was applied in this work. Confirmatory Factor Analysis (CFA) was used to examine the link between constructs and indicators based on the created theory while assessing the questionnaire questions. Cronbach's Alpha was also employed to assess the constructions' dependability. The CFA test findings in Table 1 reveal that the loading factor in each question item is more than 0.5, implying that all question items are genuine. Table 2 reveals that the Construct

Reliability value is 0.7 and the Variance Extracted value is 0.5 for each construct, indicating that all constructions are trustworthy. According to the findings of the CFA exam, all indicators may be utilized to assess variables and evaluate research data.

Constructs and Indicators	Estimate ($\lambda \ge 0.5$)	Result
Organizational Commitment:		
COMT1	0.89	Valid
COMT2	0.87	Valid
COMT3	0.92	Valid
COMT4	0.94	Valid
COMT5	0.91	Valid
COMT6	0.86	Valid
COMT7	0.76	Valid
COMT8	0.67	Valid
СОМТ9	0.83	Valid
Competence:		
COMPT3	0.60	Valid
COMPT7	0.85	Valid
COMPT8	0.86	Valid
COMPT9	0.94	Valid
COMPT10	0.92	Valid
COMPT12	0.87	Valid
Productivity:		
PDT1	0.92	Valid
PDT2	0.92	Valid
PDT3	0.96	Valid
PDT4	0.94	Valid
PDT5	0.90	Valid
PDT6	0.90	Valid
PDT7	0.86	Valid
PDT8	0.82	Valid
PDT9	0.83	Valid

Table 1 Validity Test Result Based on Fit Model

Table 2 Reliability Test Result Based on Fit Model

Variables	Construct Reliability ≥ 0.7	Variance Extracted ≥ 0.5	Result
Competence	0.938	0.718	Reliable
Organizational Commitment	0.960	0.729	Reliable
Productivity	0.973	0.802	Reliable

4. Results and Discussion

In this work, hypotheses were tested using first-order Structural Equation Modelling (SEM) with LISREL 8.80. Figure 2 depicts the results of the whole SEM test. Meanwhile, Table 3 outlines the test results assumptions used in constructing SEM. Confirmation test of the fit model on the entire model, which already fulfills the goodness of fit requirements. A causal research model with structural linkages is created using the model structure. The goodness of fit test yielded the following results: Chi-Square = 1191.91, probability = 0.0, GFI = 0.75, AGFI = 0.67, NFI = 0.92, CFI = 0.93, IFI = 0.93, RMSEA = 0.033. The desired cut-off value was satisfied by all study criteria. This means that the research model is suitable and fits the usual standards for assessing and testing the suggested hypothesis.

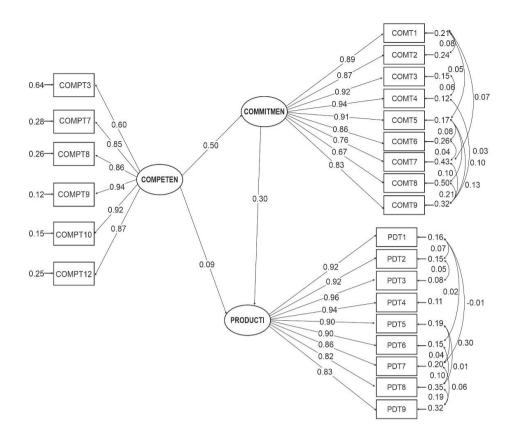


Figure 2 The Effect of Competence and Organizational Commitment on Work Productivity of Indonesian Cable and Electrical Industries Employees

4.1. The impact of organizational commitment on employee job productivity

The findings of hypothesis 1 testing show that organizational commitment has a favorable and substantial influence on job productivity. According to (t = 4.59 > 1.96). These findings are similar to the findings of Osa and Amos (2014) research, which found that employee dedication substantially impacts organizational productivity. Employee productivity is significantly influenced by organizational commitment, which includes factors such as improved organizational performance and effectiveness. Meanwhile, according to Dixit and Bhati (2012), firms must ensure employee commitment by adopting constant efforts to sustain and grow staff productivity.

4.2. The impact of competence on employee productivity at work

The findings of hypothesis 2 testing show that competence has a favorable but nonsignificant influence on job productivity. According to (t = 1.42 < 1.96). These findings are similar to the previous study (Saputra, Bagia, and Suwendra, 2016), which indicates that intellectual competence has a favorable influence on employee productivity, whereas competence in reading and writing information affects boosting job productivity. When compared to manager abilities, it discovered that the manager's character might provide attention to deciding staff productivity

4.3. The impact of skill on organizational commitment

The findings of hypothesis 3 testing shows that work competence positively and substantially influences organizational commitment. According to (t = 9.13 > 1.96). These findings are consistent with research by (Purwanto, 2019; Fadli, Fadili, and Kartawijaya, 2012) that states that work competence has a positive and significant effect on commitment. It is explained that employees can work well if they have insight so they can make decisions, is easy to adapt and socialize so, and will increase competence. Having good

competence will affect the company's success, loyalty, and involvement, thereby increasing commitment than the organization itself According to research by (Yusni, 2018; Silen, 2016), competency has a favorable and substantial influence on organizational commitment. Employees with higher levels of competency can boost organizational performance and commitment (Nugraha *et al.*, 2022).

4.4. The role of organizational commitment in mediating the influence of competence on employee work productivity

The findings of hypothesis 4 testing indicate that organizational commitment plays a function as a suitable mediating variable for the competence variable in impacting employee job productivity. Based on the Sobel test (t = 4.15 > 1.96). The findings of this study support the findings of various earlier studies done by (Praditya, 2020; Sumardjo, 2011), which state that competence and organizational commitment strongly influence job productivity. According to the findings of another study (Nguyen, 2020; Sudiardhita, 2013), the simultaneous impact of remuneration and competence factors on organizational commitment may be explained by the high and low levels of compensation and employee competence. According to research (Kurniasari, Thoyib, and Rofiaty, 2018), organizational commitment plays a complete mediation function in moderating the effect of competence, training, and organizational culture on performance. Furthermore, according to (Pudjianto, 2021) research, organizational commitment mediates the influence of motivation on organizational work productivity, and organizational commitment mediates the effect of competence for organizational work productivity (Varlamova and Larionova, 2020).

Hypothesis	Structural Path	Standardized Path Coefficients	Standard Error	t-value	Results
H1	Commitment Organizational → Productivity	0.30	0.062	4.59	Significant
H2	Competence \rightarrow Productivity	0.09	0.073	1.42	Non-Significant
H3	Competence \rightarrow Commitment to Organizational	0.50	0.065	9.13	Significant
H4	Competence → Commitment C	$rganizational \rightarrow$	Productivity	4.15	Significant Sobel Test

In this study, organizational commitment is an effective mediating variable for work competency characteristics in impacting employee work productivity. These findings were derived from the results of the Sobel test analysis. This conclusion is backed by theories and prior research, including work by (Kurniasari, Thoyib, and Rofiaty, 2018), who found that organizational commitment plays a complete mediation role in moderating the effect of competence, training, and organizational culture on performance. Furthermore, according to (Pudjianto, 2021) research, organizational commitment mediates the influence of motivation on organizational work productivity, and organizational commitment mediates the effect of competence on organizational work productivity. Employees that are more active and committed to the firm will be more involved and loyal to the company if they have a stronger organizational commitment. If employees' competencies are developed, the indirect effect of competence on job productivity will be significant for the organization— the more the workers' job competency, the greater the organizational dedication and production. Employees with high competence do their jobs effectively, efficiently, and with high quality, influencing their loyalty to the business and increasing work productivity.

Regarding impacting work productivity, the organizational commitment variable has the greatest t-count coefficient. This indicates that the major thing that must be done to

boost the job productivity of employees in Indonesia's cable and electricity business is to strengthen organizational commitment. Furthermore, it is critical to increasing employees' competency in order for them to be more competent in their employment. It is envisaged that when job competence improves, organizational commitment improves as well and that; as a result, the work productivity of Indonesian cable and electricity industry personnel improves.

Theoretically, this research can increase the knowledge of organizational commitments, efficiency, and worker productivity in Indonesia's manufacturing sectors. The results of this study will contribute to the growth of science, particularly in employee productivity and human resource management, by offering reading material and knowledge. Furthermore, it is predicted that this study will serve as a guide for future research on how to affect various variables, including moral conduct, internal communication, psychological capital, job engagement, the meaning of work, and organizational commitment. By using the findings of this study, it is anticipated that future research will be able to add references and information for practitioners to implement in the field. Additionally, it is anticipated that the study's findings will be useful to millennials working in Indonesia's industrial sector and will serve as a resource or input.

To increase competence and organizational commitment, as well as productivity, it is suggested that manufacturing firms investigate and implement sustainable programs such as core competency development programs, functional competencies, behavioral competencies, and role competencies for personnel. Working there has a promising future. Increase organizational commitment through normative commitment, continuous commitment, and emotional commitment to getting employees to behave more obediently and give the impression that they are a part of the company they work for.

5. Conclusions, Implications, and Suggestions

The findings of hypothesis 1 testing show that organizational commitment has a favorable and substantial influence on job productivity. According to (t = 4.59 > 1.96). While the findings of hypothesis 2 testing showed that competence has a favorable but non-significant influence on job productivity. According to (t = 1.42 < 1.96). Hypothesis 3 testing shows that work competence positively and substantially influences organizational commitment. According to (t = 9.13 > 1.96). The findings also of hypothesis 4 testing indicate that organizational commitment plays a function as a suitable mediating variable for the competence variable in impacting employee job productivity. Based on the Sobel test (t = 4.15 > 1.96). According to the research hypothesis testing results, competency has a positive and substantial influence on organizational commitment and job productivity. Similarly, organizational dedication has a large and favorable impact on employee job productivity. Employee productivity is most influenced by organizational commitment. The organizational commitment variable moderates work competence's influence on employee productivity.

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