

## Effectiveness of Organizational Network Analysis (ONA) on Global Competence and Work Productivity in Multinational Companies (Indonesia and Malaysia Country Study)

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ARTICLE INFO	ABSTRACT
<b>Keywords:</b> Work Productivity, Global Competence, Organizational Network Analysis.	<i>In a world full of uncertainty, companies need new methods to develop businesses that are closely related to work productivity. This productivity is influenced by leadership in the organization that is able to motivate employees to achieve company goals. Organizational Network Analysis (ONA) offers a unique approach in analyzing social relationships in organizations to improve productivity. Individual productivity depends on the competencies possessed, and global competence is an important thing that every individual must have to help companies compete and survive the challenges. The purpose of this study is to determine and analyze the effectiveness of organizational network analysis on global competence and work productivity in multinational companies. The method in this research is quantitative non-experimental. The number of samples in this study were 124 people. The data analysis technique uses the PLS or Partial Least Square method. The results showed that work productivity is inseparable from the role of ONA as a variable that can prove a strong relationship and the important role of ONA in organizational activities. And also the global competency variable is placed as a mediating variable with ONA that affects work productivity with the results of data processing from SMARTPLS 3.2.9 can still provide a significant and positive slice of influence. This research has implications for the development of organizational management strategies, especially in improving work productivity through the application of Organizational Network Analysis (ONA) and strengthening global competencies.</i>

### INTRODUCTION

Employees are one of the production factors that play an important role compared to other production factors (Nidyawati, 2022). Existing research suggests that we have a relatively good understanding of the scope of outcomes in four areas: personal wellbeing, work productivity, relationships, and personal growth, which are expected to be of particular concern to leaders (Urrila, 2022). Organizations can achieve sustainable operations and more intensive use of production factors, which can lead to greater productivity and profitability (Skýpalová et al., 2022). High productivity can be an essential source of competitive advantage as, in fact, companies with high-quality knowledge workers are those that experience faster growth with higher profitability (Tapasco-Alzate et al., 2022). Employee productivity will reach its highest point when the company can create specific mechanisms.

Moreover, this can create alignment with the company's goals; when working productivity increases, employees will have more reciprocity as a direct impact and vice versa (Siagian & Pirzada, 2022). However, the personal ego of the stakeholders will, in turn, result in lower work productivity than it should be (Marikyan et al., 2022). In addition, increased demand must be complemented by the ability to increase productivity (Gujar & Shahare, 2018). In addition, the increase in demand must be complemented by the ability to increase productivity. Today's globalized world requires an essential emphasis on sustainability in productivity and industrialization processes, even more so with current environmental issues of water supply, deforestation, climate change as well

as sanitation issues such as COVID-19, which permeate throughout and threaten all global activities and for this reason it is necessary to strengthen global competencies for future scholars (Ortiz-Marcos et al., 2020).

On the other hand, maintaining competence should be one of the main objectives in an increasingly globalized world characterized by socio-cultural, political, economic, and technological interconnectedness and interdependence (Cao & Meng, 2020). Since worker competence is critical to product quality and productivity, an approach is proposed to balance the optimal production line by considering the skill level of the workers. (Chourabi et al., 2020). An interesting distinction that needs to be highlighted is that there needs to be a clear pattern between the most critical competencies and those with the most significant gaps (Beneitone & Yarosh, 2021). In business environments characterized by extended structural dimensions and complex organizations, it is often challenging to define and identify the competencies of people involved in business processes (Russo, 2016). Comparative organizational network analysis makes it possible to identify similarities and differences between organizations according to the content of their networks (Ramos et al., 2022).

Organizational network analysis is widely used to understand the dynamics within organizations in both the private and government sectors (Merrill et al., 2008). Even new employees quickly realize that formal structures, official relationships delineated by chains of command and formal accountabilities, must fully describe how things get done in organizations (Hunter & Wolf, 2016). The current mainstay in knowledge management is the importance of relationships in influencing knowledge sharing. Organizational Network Analysis (ONA) has become a standard method for diagnosing relationships between individuals and groups within companies and across organizational boundaries (Anklam et al., 2005). Organizational network analysis makes it easy to see the key points of a complex network system, allows different points of view, and provides valuable clues for leaders (Gursakal et al., 2009).

In previous research, many studies have been conducted on Work Productivity. However, research addressing Global Competence is often found in the education industry and is still rare in corporate organizations. In addition, using organizational network analysis (ONA) as a variable in quantitative research is still very rare among many researchers. In the context of this research, this study aims to determine and analyze the effectiveness of organizational network analysis on global competence and work productivity in multinational companies. The benefits of this study are that it provides deeper insights into how organizational networks can be used as a strategic tool to improve competence and work productivity, as well as practical recommendations for companies in optimizing their network structure to achieve organizational goals more effectively.

## **METHOD**

In this study, a quantitative nonexperimental research method was used, uniquely designed to answer whether an intervention works for a particular population from an existing sample (Cook & Cook, 2008). The sample was taken from one of the multinational companies engaged in the field of fast-moving consumer goods that specializes in selling cigarettes with trademarks that have been known for a long time in the tobacco industry in the headquarters of two countries, namely Indonesia and Malaysia, using the non-probability purposive sampling method which is a sampling unit selected based on specific considerations to obtain a sampling unit that has the desired characteristics. This technique is used mainly when only a few people have expertise in the field (Pace, 2021). In this study, the sample of respondents from Indonesia was 76, and the sample of responses from Malaysia was 48, or the total sample in this study was 124 people.

This research uses the PLS or Partial Least Square method (Henseler et al., 2016). PLS is used for several reasons: it can overcome the problem of small sample sizes and measure complex models with many latent variables and indicators (Henseler et al., 2009). In addition, this research is exploratory and does not require certain data assumptions (data distribution). (Huyler & McGill, 2019), and is very suitable for testing the interaction effects of relationships between variables (Sharma et al., 2021). It does not require normally distributed multivariate data and uses the bootstrapping method to estimate the significance of the path coefficient (Bollen & Stine, 1992). The instrument in this quantitative research uses a questionnaire or questionnaire in the form of a score (Mallinckrodt & Wang, 2004). Data processing in this study used SMARTPLS software version 3.2.9.

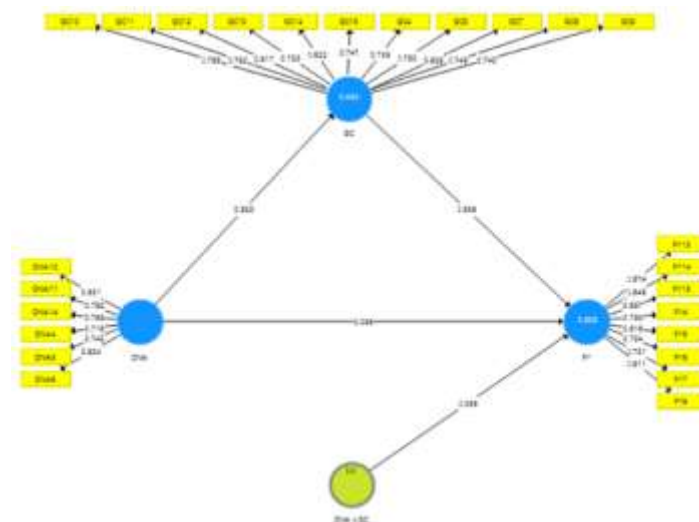


Figure 1. Path Diagram

### Outer Loading Chart

In testing the outer loading of each variable, as many as 15 questions were asked on the sample, the remaining Organizational Network Analysis variable was 6 question items, and Global Competence was 11. Work Productivity is 8 question items that qualify to proceed to the inner model test, or the loading factor value is at least 0.60 and ideally at 0.70 or more, indicating that each measure accounts for 50 percent or more of the difference (Chin, 1998).

Table 1. Outer Loading Test

Question Item	Global Competence (GC)	Organizational Network Analysis (ONA)	Work Productivity (PY)
GC10	0.789		
GC11	0.763		
GC12	0.817		
GC13	0.723		
GC14	0.822		
GC15	0.747		
GC4	0.739		
GC5	0.750		
GC7	0.826		
GC8	0.749		
GC9	0.740		
ONA10		0.831	
ONA11		0.792	
ONA14		0.789	
ONA4		0.718	
ONA5		0.742	
ONA6		0.804	
PY13			0.874
PY14			0.846
PY15			0.897
PY4			0.793
PY5			0.816
PY6			0.724
PY7			0.701
PY9			0.811

Apart from the outer loading value, the average variance extracted (AVE) value is one of the requirements for the inner model test, namely the average variation of each measurement item contained by the variable. How far can the overall variable explain the variation in measurement items? This measure also illustrates how good the convergent validity of the variable is with the condition that the (AVE) value is  $\geq 0.50$  (Purwanto, 2021). According to the output table from SMARTPLS below:

**Table 2. Construct Reliability and Validity**

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
GC	0.931	0.932	0.941	0.594
ONA	0.871	0.872	0.903	0.609
PY	0.924	0.928	0.938	0.657

The value of outer loading and construct reliability and validity has met the requirements in data processing using the PLS-SEM method. Then, to confirm the hypothesis, the inner model test or test that looks at the relationship between variables by formulating the problem used in this study using the bootstrapping method to estimate the significance of the path coefficient (Bollen & Stine, 1992).

## RESULTS AND DISCUSSION

**Table 3. Mean, STDEV, T- Values, P-Values**

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
GC -> PY	0.836	0.838	0.077	10.796	0.000
ONA -> GC	0.833	0.838	0.033	25.067	0.000
ONA -> PY	0.762	0.769	0.043	17.859	0.000

Based on the output of SMARTPLS 3.2.9 in Table 3, the effect of Global Competence (GC) on Productivity (PY) has a T-statistic value of 10.796 with a P-value of 0.000, which indicates a significant effect. This supports previous findings that identify global competence as a key factor in improving organizational performance. For example, research by (Idrus et al., 2023) found that global competence can increase employees' flexibility and adaptability in the face of changes in the global business environment, which ultimately impacts productivity.

Organizational Network Analysis (ONA) was also found to have a significant influence on Global Competence, with a T-statistic of 25.067 and a P-value of 0.000. This shows that the application of ONA is able to improve global competence in the organization. These results are consistent with research conducted by (R. L. Cross & Parker, 2014), which shows that the use of ONA allows organizations to understand internal and external network relationships, which can strengthen employees' global competence in working more collaboratively.

In addition, the analysis results show that ONA also has a direct influence on Productivity with a T-statistic value of 17.859 and a P-value of 0.000. This is in line with research by (R. Cross et al., 2016), which shows that the use of ONA helps identify bottlenecks and information flow in organizations, thereby increasing overall productivity. ONA enables organizations to optimize network structures that support more efficient and productive workflows;

**Table 4. Mean, STDEV, T- Values, P-Values**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
ONA -> GC -> PY	0.696	0.702	0.069	10.091	0.000

The results of the SMART PLS 3.2.9 output above answer the hypothesis in this study, and by the beginning of why this research was conducted and raised the issue of work productivity, which is inseparable from the role of ONA as a variable that can prove a strong relationship and the critical role of ONA in organizational activities and besides that, global competence is always a topic of research in the education industry. This discussion is still rare in other industries, so researchers here try to measure how much global competence plays a role in private organizations.

Previous studies used the global competency variable on work productivity in factories that produce clothing or textile factories with machine operators as research samples. The result was that global competence affects work productivity (Chourabi et al., 2020). ONA is an ideal tool provider for exploring the structure and internal collaboration of organizations so that it can help expand from examining individual organizational attributes to understanding the strength of relationships between organizations and, ultimately, how these relationships affect productivity (Naumann et al., 2019). When the global competency variable is placed as a mediating variable with ONA that affects work productivity with the results of data processing from SMARTPLS 3.2.9, it can still provide a significant and positive slice of influence.

## CONCLUSION

The conclusion of this study shows that global competence (GC) has a significant influence on productivity (PY), with a T-statistic of 10.796 and a P-value of 0.000, which reinforces previous findings that global competence plays an important role in improving organizational performance. In addition, organizational network analysis (ONA) was shown to have a significant influence on global competence, with a T-statistic of 25.067 and a P-value of 0.000. ONA also contributes directly to productivity, indicated by a T-statistic of 17.859 and a P-value of 0.000. These findings confirm the important role of ONA in improving global competence and productivity in the organizational environment. It is hoped that this research can contribute to the world of academia and for practitioners, among practitioners, especially in local companies that have not gone public, can benchmark with companies that can compete globally by not ruling out the importance of network analysis in the company's organizational structure, so that when problems occur, action can be taken as soon as possible to minimize company losses. Global competence is one indicator that, sooner or later, will become one of the variables that cannot be separated from the development of the era, and it is hoped that practitioners will be able to develop existing individuals to compete globally. As for academics, it is hoped that they will begin to conduct research regarding global competencies not only in the world of education and are also expected to provide education to practitioners to be able to focus on developing employee competencies so that they are expected to compete at a higher level and ultimately be able to increase work productivity which will have a direct impact on company performance.

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