

OPTIMIZATION OF CAPABILITY AND PERFORMANCE IN INCREASING COMPETITIVENESS IN PEST CONTROL COMPANIES IN WEST JAVA

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ABSTRACT: *As a developing country, the potential for the pest control service industry that depends on other industries is quite competitive. The pest control service industry is an industry that functions to support other industries. The government is committed to making the domestic pest control service industry a major player in this field, so as to create a sustainable economic revival in Indonesia. This research focuses more on competitiveness supported by capability and performance, particularly in the pest control service industry. Capability and performance are supporting components so that the competitiveness of an organization can survive and become a demand for the organization to have competence and competitiveness with similar industries. This study aims to look at the competitiveness of companies, especially the PCO industry. Variables that are measured are capabilities and performance using Porter's Five Diamond method. Respondents who are the objects of research are companies that are members of the West Java Region ASPPHAMI. The results showed that competitiveness was influenced by the capability variable and performance variable by 49%, while 51% was explained by other factors.*

Keywords: *Competitive Advantages, Capability, Performance, Pest control*

I. INTRODUCTION

The Association of Indonesian Pest Control Companies (ASPPHAMI) encourages its members to be able to increase professionalism and competitiveness following the promotion of industry 4.0 trends in all business sectors, without exception in the pest control service industry. As a pest control industry (Pest Control), settlements have a large enough market potential. The pest control market in Indonesia from year to year is linear with the development of industries that use pest control services, such as the hotel industry, hospitals, restaurants, food and beverage, office buildings, and others.

Currently, not only local companies are working on the pest control service industry. Many foreign companies have started to open operational offices in Indonesia because of the large market and existing business opportunities. More than that, companies need to understand correctly the regulations that apply in pest control operations. Competitiveness in this business needs to be improved, especially for local Indonesian companies to respond to the challenges of business trends and the increasing competition in the pest control business in Indonesia.

The government's policy to revise the negative investment list (DNI) has recently become a challenge for business people, one of which is the pest control industry. This policy becomes one of the challenges from the external side, while internally the main challenge is human resources. According to data from ASPPHAMI (Association of Indonesian Pest Control Companies), the technician standard of pest control workers in Indonesia is on average still SMP (Junior High School). Another thing is the number of pest control companies that continues to grow every year, but the trainings held by ASPPHAMI are still not in demand by many pest control companies so that technicians do not have certification as technicians or as supervisors.

Human resources are the main thing in organizations and companies. The higher the employee's ability, the higher the organizational performance. The lower the employee's ability, the lower the organizational performance. In order for management activities to run well, the organization must have employees who are competent or highly skilled to manage the organization optimally so that employee performance increases. Humans always play an active role in every organization because humans become planners, actors and determinants of the realization of organizational goals. The goal is impossible to achieve without the active role of employees even though the equipment owned by the organization is so sophisticated. The focus of the study of human resource management is on the problem of labor in the arrangement of the order of its functions. this needs to be regulated in order to be effective and efficient in

realizing the goals of the organization, employees and society. Organizational demands to develop and maintain quality resources are increasingly pressing in accordance with the dynamics of the environment and ever-changing technology.

A pest control company is a pest control service company with a working method that refers and adjusts the biological characteristics of the pest and the characteristics of the control area without depending on the use of pesticides. This makes pest control results more effective, more efficient, safer, and more thorough in the long term. During its development, the number of customers of pest control companies has fluctuated in line with the intense competition. The existence of problems in capability and performance makes pest control companies have to make something to survive with the competitiveness in the industry. The purpose of this study was to determine the optimization of capabilities and performance as a demand for competitiveness, especially in the pest control industry.

II. RESEARCH METHODS

In this study, three research hypotheses are proposed, namely: (H1) capability has a positive effect on competitiveness, (H2) performance has a positive effect on competitiveness, and (H3) capability and performance both have a positive effect on competitiveness. The concept of variables, dimensions, and hypotheses in the study is shown in the figure below.

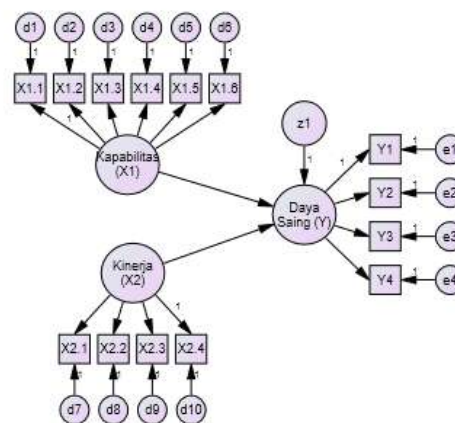


Figure 1 Research Concept Framework

Sources :Porter (1998), Barney &Hesterly (2015), Thomson etc. (2000), Neely (2002), Davis (2010), Robbins & Judge (2013)

This research was conducted through a survey. The number of samples taken was 89 respondents who were part of the PCO Service Company, a member of the Association of Indonesian Pest Control Companies (ASPPHAMI) in West Java. The sampling technique used accidental sampling. Primary data collection uses a questionnaire containing statements of indicators as a manifestation of the research variables. The measurement scale for variable indicators uses a Likert scale, namely "strongly agree" with a score of 5, "agree" with a score of 4, "neutral" with a score of 3, "disagree" with a score of 2, and "strongly disagree" with a score of 1. Each statement items passed validity and reliability testing according to the construction of the research model.

Data analysis was performed by measuring the model construction and the relationship between variables using the multivariate SEM-PLS technique or Structural Equation Modeling - Partial Least Square, also known as the second generation of multivariate analysis.

The variables used in this study include independent or exogenous variables (X) consisting of Capability (X1) and Performance (X2), as well as dependent or endogenous variables (Y) which consist of Competitiveness (Y). Primary data is processed using the SEM-PLS method to analyze the relationship and influence between the Capability and Performance variables on Competitiveness, with stages including:

1. Data processing using Smart PLS software
2. Design the outer model
3. Inner model design
4. Analysis of the results of the outer model, which consists of convergent validity, discriminant validity, AVE, and composite reliability
5. Analysis of the results of the inner model (R-Square)

III. RESULTS

Before being entered, the results of the data will be tested for reliability and validity, as shown in the figure below.

Construct Reliability and Validity

Matrix	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted
	Cronbach's Al...	rho_A	Composite Rel...	Average Varian...
Daya Saing	0.980	0.989	0.982	0.770
Kapabilitas	0.988	0.991	0.989	0.839
Kinerja	0.979	0.989	0.981	0.789

Figure 2. Reliability and Validity Results

Source: Data processed by SEM-PLS

Based on the data above, the results of the validity test on the competitiveness variable, capability variable, and performance variable meet the validity test requirements, which is above the r value of 0.2096. On the reliability variable, the results also meet the requirements, so that tests can be done using SEM-PLS.

The data obtained will be entered into the model construct on SmartPLS, then calculated (running) to test the validity and reliability once or repeatedly until the loading factor value of all indicators is above the validity requirement of 0.2096. Indicators that have a loading factor value below 0.2096 must be removed so that the validity and reliability of this model can be improved. The results of SmartPLS calculations that have met the validity and reliability requirements are shown in Figure 3 below.

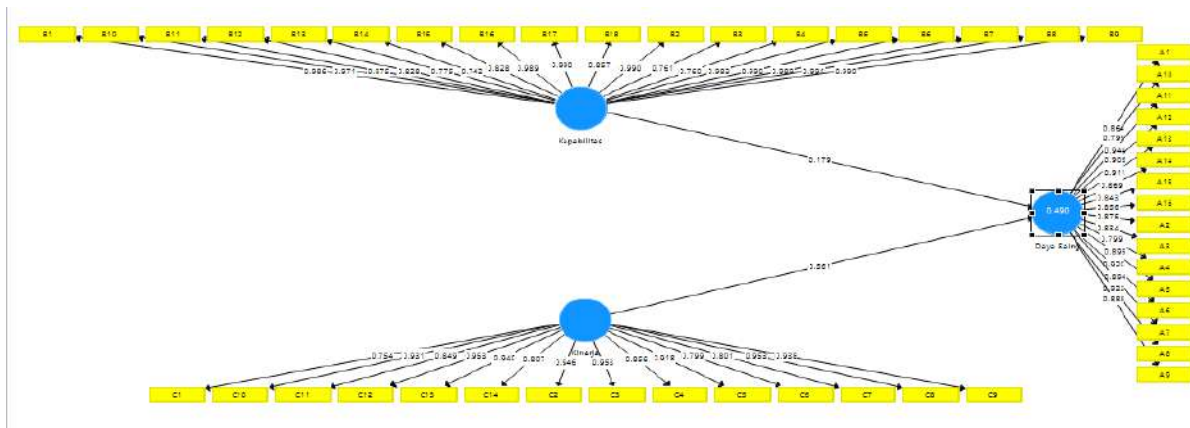


Figure 3 Final Result of Calculation using SmartPLS

Source: Data processed by SEM-PLS

IV. DISCUSSION

Based on the results of SmartPLS processing in the final stage, all indicators have a loading factor value above the validity requirement of 0.2096. These results make all indicators meet the first requirements of model evaluation validation. The fulfillment of the first condition has an impact on the AVE value of latent variables, where all of them already have values above 0.2096. All variables have also met the reliability requirements with a value above 0.2096, so that they have met the second condition of model validation, and are ready to proceed to the outer model assessment stage. The model evaluation criteria in the assessment of the outer model are presented in Table 1.

Table 1 Model evaluation criteria

Model evaluation criteria	Explanation
<i>Convergent Validity (Loading Factor)</i>	The loading factor value must be above 0.2096 for confirmatory studies. Loading factor value > 0.2096 for exploratory research
<i>Composite Reliability</i>	Value > 0.2096 for confirmatory studies Its value is still acceptable for exploratory research.
<i>Average Variance Extracted(AVE)</i>	AVE value > 0.2096
<i>Discriminant Validity</i>	The square root value of AVE must be greater than the correlation value between latent variables

Hypothesis testing is carried out based on the path coefficient value, so that it is known the significance of the influence between constructs by looking at the value of the parameter coefficient and the value of the t_{count} . The test was carried out in two directions, with limitations to reject or accept the proposed hypothesis using an α value of 5%, and a t_{table} of 1.66. When the t_{value} is more than 1.66, the hypothesis can be accepted, but if the t_{value} is less than 1.66, the hypothesis will be rejected. The calculation results on the path coefficient are presented in Figure 4.

Path Coefficients

	Mean, STDEV, T-Values, P-Values	Confidence Intervals	Confidence Intervals Bias Corrected	Samples	
	Original Sampl...	Sample Mean (...)	Standard Devia...	T Statistics (O...	P Values
Kapabilitas -> Daya Saing	0.179	0.184	0.063	2.842	0.005
Kinerja -> Daya Saing	0.561	0.560	0.071	7.883	0.000

Figure 4 Result of Calculation Path Analysis with SmartPLS

Source: Data processed by SEM-PLS

Based on the Figure above, it can be seen that the capability variable has an effect on competitiveness (0.179, $t_{count} = 2.842 > t_{table} 1.66$). Performance variables have an effect on competitiveness (0.561, $t_{count} 7.883 > t_{table} 1.66$). These results indicate that hypothesis 3 (H3) is rejected, because in this study it was found that capability and performance had a positive impact but had no direct effect on competitiveness. Inner analysis of the R-Square model uses the goodness-fit test of the model, and is depicted in Figure 5.

R Square

	R Square	R Square Adjusted
Daya Saing	0.490	0.478

Figure 5 R-Square SmartPLS Calculation Results

Source: Data processed by SEM-PLS

Based on the picture above, the competitiveness variable is influenced by the capability variable and the performance variable by 49%, while 51% is influenced by other factors.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- Capability has a direct and significant effect on increasing the competitiveness of pest control companies in West Java.
- Performance has a direct and significant effect on increasing the competitiveness of pest control companies in West Java, and
- Capability and performance have a direct and significant effect on the competitiveness of pest control companies in West Java by 49%, while 51% are influenced by other factors.

Recommendations

Some suggestions for future research:

- Research objects can be developed in more developed areas for areas with higher PCO needs that have different characteristics
- Further research can be carried out with a research model that has a different basic approach, so that it has the potential to produce varied research results and may be more relevant to actual conditions.

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