Assessing the Impact of Training, Industry Partnerships, and Government Policies on the Success of Business Development Programs: A Case Study in Central Java Province

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\textbf{Article Info}  
\textbf{Article history:}  
Received November 2023  
Revised November 2023  
Accepted November 2023

\textbf{Keywords:}  
Training, Industry Partnerships, Government Policies, Success of Business Development Programs

\textbf{ABSTRACT}  
This research explores the multifaceted factors influencing the success of business development programs in Central Java Province. Specifically, it examines the impact of training initiatives, industrial partnerships, and government policies on the participation and effectiveness of development programs. A sample of 120 businesses and entrepreneurs in the region was analyzed using structural equation modeling (SEM) with Partial Least Squares (PLS) as the data analysis method. The results reveal significant relationships between the variables under investigation. Businesses perceiving favorable government policies are more likely to participate in development programs. Likewise, investments in training programs and engagement in industry partnerships are positively associated with participation in development initiatives. The goodness-of-fit analysis demonstrates that the Estimated Model adequately represents the data, affirming its validity and reliability. The research provides valuable insights into the interconnected nature of factors contributing to the success of business development programs in Central Java Province, highlighting the importance of collaboration, supportive government policies, and training initiatives. These findings can inform policymakers, businesses, and stakeholders in the region, aiding in the design and implementation of more effective development programs.

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\section{1. INTRODUCTION}  
Central Java Province has been the focus of efforts to promote economic growth and development through various initiatives, including training programs to enhance entrepreneurial skills, fostering strategic industrial partnerships, and implementing government policies to create a conducive business environment [1]–[4]. These efforts have aimed to address the low economic growth rate in the province and have shown positive effects on economic growth, as seen in the impact of human development index, total labor, and sex ratio on economic growth in the region [5]. Additionally, disaster risk
management efforts have been considered, with a study estimating the average household expenditure on insurance to minimize losses due to natural disasters in West Java Province, which has a high disaster risk index [6]. Furthermore, the government has collaborated with various agencies and business actors to develop small, medium, and large industries, aiming to increase the market economy between provinces, as seen in the strategic management of the Department of Industry and Trade in East Java [7].

The success of business development programs is crucial for economic prosperity, job creation, and improved quality of life. Assessing their impact and understanding contributing factors is a complex endeavor due to the diverse nature of communities and the need to address economic, sociological, and cultural aspects [8]–[10]. Factors such as business regulations, FDI inflow, economic growth, workforce development, and the impact of past discrimination embedded in institutions and culture all play a role in the success of these programs. The success of business development programs is crucial for economic prosperity, job creation, and improved quality of life [11]. Assessing their impact and understanding contributing factors is a complex endeavor due to the diverse nature of communities and the need to address economic, sociological, and cultural aspects [12]–[14]. Factors such as business regulations, FDI inflow, economic growth, workforce development, and the impact of past discrimination embedded in institutions and culture all play a role in the success of these programs [15].

Central Java’s economic significance is evident in its vulnerability to drought and flood hazards, the digital campaign to fight Covid-19, fiscal decentralization’s effect on capital expenditure, economic growth, and social welfare, factors influencing the poverty rate, and the disparity in economic growth between Java and outside Java [16]–[18]. The province’s diverse businesses include agriculture, manufacturing, tourism, and services, making business development crucial for its economic growth and competitiveness [19]–[23].

Government-initiated programs, in collaboration with local industries and international organizations, aim to support business growth and entrepreneurship through training, skill development, fostering industry partnerships for innovation, and implementing policies for a conducive business environment. These programs are crucial for addressing unemployment, poverty alleviation, and economic growth, particularly in developing countries. The effectiveness of these programs depends on the ability of small enterprises to exploit the opportunities provided and the complementarity effect between different types of support programs. Additionally, there is a need for a more active role of the government, particularly in providing targeted innovation instruments, to support firms with high-growth potential [24], [25].

Despite these efforts, the effectiveness of such programs in Central Java remains a subject of inquiry. Questions persist about the impact of training programs on business growth, the extent to which industrial partnerships contribute to success, and the effectiveness of government policies in creating an enabling environment for entrepreneurship. This research seeks to address these questions and provide evidence-based insights to inform policy and decision-making.

2. LITERATURE REVIEW

2.1 Training Programs and Business Development

Entrepreneurship training programs play an important role in equipping individuals with the necessary skills and knowledge to navigate the competitive marketplace and manage their businesses effectively. Research has shown that such programs have a positive impact on business development, leading to higher business survival rates and growth potential. This is especially important in diverse industries, where entrepreneurs can benefit from
comprehensive training to enhance their capabilities and succeed in a competitive market landscape. Entrepreneurship training programs play a critical role in equipping individuals with the necessary skills and knowledge to navigate the competitive market and manage their businesses effectively [26]. Research has shown that such programs have a positive impact on business development, leading to higher business survival rates and growth potential [27]. This is especially important in diverse industries, where entrepreneurs can benefit from comprehensive training to enhance their capabilities and succeed in a competitive market landscape [28].

Training programs play a crucial role in developing skills related to marketing, financial management, and technical competencies for entrepreneurs. These programs enable entrepreneurs to make informed decisions, enhance the quality of products and services, and adapt to evolving market demands. Training programs play a crucial role in developing skills related to marketing, financial management, and technical competencies for entrepreneurs, enabling them to make informed decisions, enhance the quality of products and services, and adapt to evolving market demands [29]–[31].

2.2 Industrial Partnerships and Business Development

Industrial partnerships and business development thrive on collaboration, knowledge transfer, and innovation, fostering efficiency and competitive advantages. Boundary-spanning relationships between businesses, research institutions, and government bodies facilitate the flow of ideas, technology, and best practices, promoting a skilled workforce and shared infrastructure. Clustering of businesses can enhance regional competitiveness by encouraging knowledge spillovers and fostering innovation, leading to economic and marketing benefits, as well as socio-economic revival of a region. This is achieved through the absorption and skillful use of knowledge, stimulating the flow of knowledge between cooperating entities, and increasing the level of innovation of undertaken projects [32]–[35].

2.3 Government Policies and Business Development

Government policies significantly impact the business environment by reducing administrative burdens, simplifying regulatory processes, and providing a stable legal framework, which can attract and retain businesses. The World Bank's Ease of Doing Business Index emphasizes the importance of regulatory reforms in promoting entrepreneurship and economic development. Financial support and incentives provided by governments, such as subsidies, tax breaks, and access to credit, can encourage businesses to invest, innovate, and expand. Research suggests that such government measures positively influence business development and entrepreneurship. Governments often play a dual role, both framing long-term strategies and partnering with businesses for economic development, as well as representing national interests in global trade and financial institutions [36]–[39].

3. METHODS

3.1 Sample Selection

The population of this study consists of businesses and entrepreneurs operating in Central Java Province. Given the diverse types of businesses in the region, a stratified random sampling technique will be used to ensure that the sample represents the different sectors and geographical locations in the province. A sample size of 120 businesses and entrepreneurs will be selected to participate in the study. This sample size is considered adequate for quantitative analysis that aims to assess the relationship between various variables, as recommended by Hair et al. (2014). The participants will be drawn from various sectors, including manufacturing, agriculture, services, and tourism, to capture the broad spectrum of businesses operating in Central Java.

Data for this study will be collected through a combination of surveys, structured...
questionnaires will be administered to selected businesses and entrepreneurs. The survey will collect information on their experiences with training programs, industrial partnerships, and government policies, as well as self-reported business performance indicators. A Likert scale will be used to measure perceptions and opinions, ranging from "Strongly Disagree" to "Strongly Agree". Open-ended questions will also be included to gather qualitative insights.

3.2 Data Analysis
The data collected will be analyzed using Structural Equation Modeling (SEM) with Partial Least Squares (PLS) as the chosen statistical technique. SEM-PLS is well suited for this study due to its ability to handle complex relationships between multiple variables and its capacity to account for measurement error.

3.3 Model Development
A structural model was built to assess the relationships between training, industry partnerships, government policies, and business performance metrics. The model will determine the hypothesized relationships, including direct and indirect effects, among these variables. The formulated research hypotheses will guide the development of the structural model.

3.4 Measurement Model
The measurement model will define how the latent constructs (training, industry partnerships, and government policies) are measured by the observed indicators. This will involve confirming the validity and reliability of the measurement instrument (survey) through factor analysis. This step ensures that the survey questions effectively capture the intended constructs.

3.5 Hypothesis Testing
Hypothesis testing will be conducted to determine the significance and strength of the relationship between the independent variables (training programs, industry partnerships, government policies) and the dependent variable (business performance metrics). Statistical tests, including path coefficient estimation, bootstrapping, and R-squared values, will be used to assess the research hypotheses.

4. RESULTS AND DISCUSSION

4.1 Demographic Participants
Comprehending the demographic attributes of research subjects is crucial for placing research findings in perspective and evaluating the sample’s representativeness. An extensive synopsis of the 120 companies and entrepreneurs that took part in the study’s demographic profile is provided in this section.

Participants in the study ranged in age from the following: Thirty-two participants (26.7%) were under thirty. 45 individuals (37.5%) were between the ages of 31 and 40. There were 25 participants (20.8%) aged 41 to 50. Twenty-eight participants (15.0%) were over 50. A balanced representation of the participants in various age groups may be seen in this distribution.

The study participants were distributed according to the following genders: 52 participants (43.3%) were female, while 68 participants (56.7%) were male. Diversity in gender engagement was reflected in the sample’s gender-balanced representation.

The participants’ levels of education were divided into the following categories: 14 individuals, or 11.7%, did not complete senior high school (SMA). 72 participants (60.0%) had a bachelor’s degree, while 34 participants (28.3%) had a master’s degree or above. The distribution of qualifications among the respondents reveals a heterogeneous educational background.

Participants in the study represented a variety of business kinds, distributed as follows: Manufacturing: forty-five people (37.5%). Agriculture: twenty-four people (20.0%). Travel: 12 individuals (10.0%) and Others: 3 individuals, or 2.5 percent. The fact that participants in this distribution come from a variety of industries highlights the province of Central Java's dynamic business environment.
The participants' lengths of business varied: Twenty participants (16.7%) had less than five years, 38 participants (31.7%), aged 6 to 10 years, 11–15 years old: 32 individuals (26.7%) and Over 15 years: 30 individuals (25.0%) The sample comprised companies of all sizes, from startups to well-established enterprises, with differing degrees of market experience.

### 4.2 Validity and Reliability

The structural equation model (SEM) presented in the previous section provides valuable insights into the relationship between the variables of Development Program, Government Policy, Training Impact, and Industry Partnership. Here, we discuss the findings based on factor loading, internal consistency (Cronbach’s alpha), composite reliability, and average variance extracted (AVE) for each construct.

#### Table 1. Validity and Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Loading Factor</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Program</td>
<td>DEP.1</td>
<td>0.893</td>
<td>0.840</td>
<td>0.904</td>
<td>0.758</td>
</tr>
<tr>
<td></td>
<td>DEP.2</td>
<td>0.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DEP.3</td>
<td>0.841</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Policies</td>
<td>GOP.1</td>
<td>0.844</td>
<td>0.775</td>
<td>0.863</td>
<td>0.677</td>
</tr>
<tr>
<td></td>
<td>GOP.2</td>
<td>0.785</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GOP.3</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact of Training</td>
<td>IMT.1</td>
<td>0.884</td>
<td>0.905</td>
<td>0.940</td>
<td>0.840</td>
</tr>
<tr>
<td></td>
<td>IMT.2</td>
<td>0.937</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMT.3</td>
<td>0.928</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Partnership</td>
<td>INP.1</td>
<td>0.791</td>
<td>0.798</td>
<td>0.882</td>
<td>0.714</td>
</tr>
<tr>
<td></td>
<td>INP.2</td>
<td>0.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INP.3</td>
<td>0.863</td>
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</tbody>
</table>

Based on Table 1 With a Cronbach's alpha of 0.840, the Development Program construct—which is represented by three indicators—shows good internal consistency. The construct's reliability is further supported by its composite reliability value of 0.904. Additionally, the Development Program's indicators account for 75.8% of the variance within the construct, as indicated by the AVE of 0.758, indicating a satisfactory level of convergent validity. The three indicators have significant loading factors: DEP.1, DEP.2, and DEP.3 have loading factors of 0.893, 0.877, and 0.841, respectively. These strong loading factors imply that every indicator measures the Development Program's underlying construct accurately.

With a Cronbach's alpha of 0.775, the Government Policies construct, which consists of three indicators (GOP.1, GOP.2, and GOP.3), demonstrates strong internal consistency. This construct's reliability is further supported by its composite reliability value of 0.863. Reasonable convergent validity is demonstrated by the Government Policies indicators, which account for 67.7% of the variance within the construct, as indicated by the AVE of 0.677. The Government Policies indicators have significant loading factors, with GOP.1, GOP.2, and GOP.3 having values of 0.844, 0.785, and 0.839, respectively. The indicators' strong loading factors suggest that they adequately reflect the concept of government policies.

With a high Cronbach's alpha of 0.905, the Impact of Training construct—represented by three indicators—displays outstanding internal consistency. The construct's reliability is further highlighted by its composite reliability value of 0.940. The Impact of Training variables account for 84.0% of the variance within the construct,
according to the very high AVE of 0.840, showing good convergent validity. Significant loading factors are present for the Impact of Training indicators: IMT.1, IMT.2, and IMT.3 have loading factors of 0.884, 0.937, and 0.928, respectively. These strong loading factors validate each indicator’s efficacy in assessing the Impact of Training’s underlying construct.

With a Cronbach’s alpha of 0.798, the Industry Partnership construct—which consists of three indicators—shows strong internal consistency. The construct’s reliability is further supported by its composite reliability value of 0.882. With an adequate level of convergent validity, the Industry Partnership indicators explain 71.4% of the variance within the concept, as indicated by the AVE of 0.714. The Industry Partnership indicators have significant loading factors, with INP.1, INP.2, and INP.3 having values of 0.791, 0.877, and 0.863, respectively. These strong loading factors imply that every indication successfully conveys the idea of Industry Partnership.

### Table 2. The Acceptability of Discrimination

<table>
<thead>
<tr>
<th></th>
<th>Development Program</th>
<th>Government Policies</th>
<th>Impact of Training</th>
<th>Industry Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Program</td>
<td>0.871</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Policies</td>
<td>0.759</td>
<td>0.823</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact of Training</td>
<td>0.653</td>
<td>0.714</td>
<td>0.917</td>
<td></td>
</tr>
<tr>
<td>Industry Partnership</td>
<td>0.644</td>
<td>0.823</td>
<td>0.732</td>
<td>0.845</td>
</tr>
</tbody>
</table>

A network of favorable associations between the constructs is indicated by the discriminant validity correlation matrix, as Table 2 illustrates. Companies are more inclined to invest in training programs, form industry collaborations, and take part in development activities when they view government policies as favorable. The constructive relationship between these constructs highlights how several elements work together to support business development initiatives in the province of Central Java. These results shed light on the region’s business ecosystem's dynamic and interconnected structure.

Figure 1. Model Internal Assessment
4.3 Hypothesis Tests Results

Table 3. Test Hypothesis

|                                | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P    |
|--------------------------------|---------------------|-----------------|-----------------------------|-----------------|------|
| Government Policies -> Development Program | 0.626               | 0.617           | 0.122                       | 5.112           | 0.000|
| Impact of Training -> Development Program | 0.242               | 0.250           | 0.106                       | 2.272           | 0.000|
| Industry Partnership -> Development Program | 0.248               | 0.244           | 0.111                       | 2.382           | 0.000|

The data shows a high correlation between development programs and government policies. With an original sample correlation (O) of 0.626, a positive link is shown. This implies that firms are more inclined to take part in development projects when they perceive government policies to be beneficial. We discover that the observed relationship (O) is greater than the expected relationship (M) when we compare this relationship to the sample mean (M). With a T statistic of 5.112 and a p-value (P) of 0.000—less than the traditional significance limit of 0.05—this difference is statistically significant. This suggests that Government Policies and Development Program have a highly significant positive connection, proving that the two variables are in fact related in the province of Central Java.

A strong correlation is shown by the examination of the relationship between the Impact of Training and Development Program. With an original sample correlation (O) of 0.242, a positive correlation is shown. This implies that companies that fund training initiatives have a higher likelihood of engaging in development initiatives. We discover that the observed relationship (O) is marginally less than the expected relationship (M) when we compare this relationship to the sample mean (M). The p-value (P), which is less than 0.05, is 0.000, and the T statistic is 2.272, indicating that this difference is still statistically significant. This suggests that training programs increase the likelihood of participating in development programs, implying a significant positive connection between Impact of Training and Development Program.

A noteworthy correlation is also shown when the relationship between the Industry Partnership and Development Program is analyzed. With an original sample correlation (O) of 0.248, a positive correlation is shown. This implies that companies that work together are more likely to take part in development initiatives. We discover that the observed relationship (O) is marginally less than the expected relationship (M) when we compare this relationship to the sample mean (M). Nonetheless, the T statistic of 2.382 indicates that this difference is statistically significant, and the p-value (P) is 0.000, which is less than 0.05. This suggests that industry partnerships and development programs have a strong positive correlation, indicating that the chance of participating in development programs is influenced by joint efforts.

4.4 Model Fit

Table 4. Model Fit

<table>
<thead>
<tr>
<th></th>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.103</td>
<td>0.103</td>
</tr>
<tr>
<td>d_ULS</td>
<td>0.822</td>
<td>0.822</td>
</tr>
<tr>
<td>d_G</td>
<td>0.430</td>
<td>0.430</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>304.332</td>
<td>304.332</td>
</tr>
<tr>
<td>NFI</td>
<td>0.730</td>
<td>0.730</td>
</tr>
</tbody>
</table>

The goodness of fit (GoF) measures, including the Standardized Root Mean Square Residual (SRMR), Satorra-Bentler Scaled Chi-Square (d_ULS), Satorra-Bentler Scaled Chi-Square (d_G), Chi-Square, and Normed Fit
Index (NFI), collectively assess how well the Estimated Model fits the data and its suitability as a representation of the underlying relationships, with consistent values between the Saturated and Estimated Models suggesting a valid and reliable fit to the data.

<table>
<thead>
<tr>
<th>Development Program</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.602</td>
<td>0.592</td>
</tr>
</tbody>
</table>

In summary, the R-squared and adjusted R-squared values of 0.602 and 0.592, respectively, indicate that the independent variables in the model collectively explain a substantial portion of the variability in the "Development Program." These values suggest a moderate to strong level of explanatory power while accounting for model complexity, reinforcing the model's ability to capture and understand the factors influencing the "Development Program."

**DISCUSSION**

The results confirm the positive impact of training programs on business performance. Businesses that invest in training and skills development for their owners and employees are more likely to experience growth and improved performance. In line with previous research, training programs have been shown to have a positive impact on business performance, leading to improved management practices, productivity, profits, and survival. Specifically targeted programs in sectors such as agriculture, manufacturing, or services, as well as programs focusing on human resources, soft skills, marketing, and finance-accounting, have been shown to result in better company performance. In addition, entrepreneurship training has been linked to SME sustainability, with specialized training in customer service, opportunity identification, and record-keeping being critical to increasing customers, sales, and profits. However, the high costs associated with such training hinder accessibility, necessitating interventions to make relevant entrepreneurship training more accessible and affordable.

Collaborative innovation and knowledge transfer through industry partnerships are crucial for driving regional economic growth, especially in areas where businesses operate in adjacent locations. The flow of ideas, technologies, and best practices across organizations facilitates the acquisition of heterogeneous resources from partners, promoting the integration and configuration of internal and external knowledge, thereby enhancing the competitiveness of enterprises. Additionally, the research emphasizes the importance of open innovation practices and the value of data capture and analysis for data-driven learning, preventive and predictive capabilities, supporting decision-making, and delivering customized experiences. Furthermore, the study highlights the significance of collaborations, particularly in highly populated areas, in enhancing firm innovation, especially in product innovation, through learning-by-doing, by-using, and by-interacting (DUI) and science and technology-based innovation (STI) partnerships.

Supportive government policies, such as non-financial support and regulatory compliance, play a crucial role in enhancing
business performance and fostering an entrepreneurial enabling environment. These policies help reduce administrative burdens, provide incentives, and facilitate business operations, ultimately contributing to improved business development and performance metrics. Supportive government policies, such as non-financial support and regulatory compliance, play a crucial role in enhancing business performance and fostering an entrepreneurial enabling environment [46]. These policies help reduce administrative burdens, provide incentives, and facilitate business operations [47], ultimately contributing to improved business development and performance metrics [48]-[51].

Implications
The results of this study have several important implications for Central Java Province and similar regions around the world. First, the findings underscore the need for continued investment in entrepreneurship training programs to equip entrepreneurs with the necessary skills and knowledge to succeed. In addition, the findings also highlight the importance of promoting collaborative efforts and innovation through industry partnerships. Finally, this study reaffirms the role of government policies in creating a conducive business environment.

Limitations
It is important to acknowledge the limitations of this study. The cross-sectional nature of the study limits the establishment of cause-and-effect relationships, and the sample size, while adequate, may not be able to capture the diversity of businesses in the region. In addition, survey data may be subject to response bias.

Future Research
Future research in this area could use a longitudinal design to explore the temporal aspects of the relationship between training programs, industry partnerships, government policies and business performance. In addition, conducting case studies to delve deeper into specific industry clusters in Central Java may provide a richer understanding of the collaborative dynamics.

CONCLUSION
In conclusion, the results of this study affirm the positive relationships between training programs, industrial partnerships, government policies, and business performance metrics in Central Java Province. These findings provide valuable insights for policymakers, entrepreneurs, and business associations seeking to foster economic growth and entrepreneurial success in the region. The research contributes to the collective knowledge on factors that impact business development and points to directions for further exploration and policy development.
REFERENCES


