

# Collaborative Strategy in Small and Medium Industries

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## ABSTRACT

This study examined the collaboration strategies that mediate the influence of the qualifications of SMIs managers, which include expertise, experience, education, and networking on company performance. The population of this study was small and medium industries supporting industrial clusters in one of the small industrial areas in the city of Bandung. There were 53 SMIs in the area. The number of samples observed with an accuracy of 5% were 23 companies, and in this study, 30 SMIs were investigated. The data were collected by distributing questionnaires and interviews to the SMIs owners or management. To get a profile about the owners of SMIs, categorization was carried out based on age, gender, length of business, and activity in associations. Questions on the questionnaire include skills, experience, education, networking, collaboration strategies, and company performance. The method used was path analysis, and it was found that expertise and networking have a significant effect on collaboration strategies and company performance. The influence of the skill variable with the communication indicator (X1) on the partnership strategy variable (collaboration) with the marketing network indicator (X11) directly is 32.4%. The effect of the networking variable with the business relationship indicator (X9) on the partnership strategy variable (collaboration) with the marketing network indicator (X11) directly is 14.7%.

**Keywords:** *Small and Medium Industries, Collaboration, Company Performance.*

## 1. INTRODUCTION

The growth of the processing industry in the 2015-2018 period, respectively, was at 5.05%, 4.43%, 4.85%, and 4.77% [1]. The momentum of growth in the processing industry positively received disruption in 2020 due to the Covid-19 pandemic. In the second quarter, the growth in the manufacturing sector experienced a contraction of 1.28% and could cause mass bankruptcy if it is not anticipated. According to [2], the COVID-19 pandemic has forced various business and industrial activities to close. The industry is faced with short-term challenges such as health and safety, supply chain issues, workforce, sales, and marketing. Success in facing various short-term challenges is also not a guarantee of a better business future because the world after the pandemic will be completely different from before.

SMIs, such as the supporting industry clusters, are affected by the pandemic covid 19. This is one of the ten priority industries programs of the ministry of industry. Supporting industry cluster is defined as industries that create goods and services, not for subsistence, but sold on the open market or any other industry to support the end product with a high added value [3].

According to its characteristics, SMIs in the supporting industry cluster in their business use a marketing strategy of industrial products or business to business (B2B). According [4], cooperation and social bonding play an essential role in establishing the success of B2B relationships. The duration and depth of the relationship have a significant effect in moderating the influence of inter-organizational or interpersonal relationships. The ability of SMIs to innovate in collaboration to seek new markets from market local to international flights into the characteristics that make a more rapid recovery after the crisis of 1998 SMIs [2].

Previous studies show a direct and positive correlation between innovation and the company's superior performance [5]. The ability to innovate is influenced by entrepreneurial abilities (including breadth of business insight, business experience, and positions in business), marketing abilities (managerial abilities), and ability to build relationships (communication) [6].

Previous research has primarily focused on marketing strategies for large companies, while research on the collaborative behavior of SMIs with B2B strategies is still very limited. For example, research by [7] on the potential for collaboration in SMI, [8] regarding collaboration between organizations and their impact on innovation, etc. This research examined the effect of collaboration strategies that mediate the qualifications of SMI owners on company performance. The qualifications of SMI owners are an adaptation of [9] and [6], which include variables of expertise, experience, education, and networking. The research was conducted on SMIs in supporting industrial clusters in Bandung, which in running their business use a B2B strategy.

Collaboration between organizations has received high attention in research and the practical world because of its influence on innovation in small and medium enterprises [8]. The ability to innovate directly affects company performance [6]. The collaborations commonly carried out by small and medium industries (SMI) are production collaborations, marketing collaborations, and knowledge and resources sharing [9].

According [10] examined collaboration in SMEs for buying, making, or strategic alliance decisions. According to [11] mentions a strategy of collaboration happening among suppliers, manufacturers, distributors, and customers expected in an aim to (1) gain access to the market, (2) Enhance the value of product/ services offered, (3) reduce risk caused by changes in the environment, (4) enhance an area of expertise, (5) gain new knowledge, (6) build cooperation with key customers and (7) gain resources that the company does not own.

Critical factors that influence success in building a network (collaboration) are (1) participant character (experience), (2) CEO support, (3) confidence, (4) dedication, (5) capability ( expertise ), (6) external relationship ( Network ),(7) intermediary and (8) information technology. According [12] found that the factors that influence the success of the collaboration between companies include mutual benefits, trust, and commitment.

The construct of collaboration strategy in this research is represented by production cooperation and marketing network. This study examined the effect of the owner/management of SMIs' qualifications, including expertise, experience, education, and networking, on the

partnership strategy (collaboration) and their effect on the performance of SMIs.

According to [6] found that the ability to innovate is influenced by entrepreneurial skills (including breadth of business insight, business experience, and positions in business), marketing skills (managerial skills), and relationship-building skills (communication skills). The need for expertise in building collaboration is also mentioned by [4; 12].

The construct of expertise in this study refers to [6] and preliminary research results in an industrial area in the city of Bandung, which includes communication, managerial skills, and business insight. The hypothesis built was:

H1: Expertise positively affects partnership strategy (collaboration)

According to [14] mention that experience helps companies become better at understanding the consequences of the actions taken by the company. This understanding will ultimately increase the efficiency and effectiveness of the company's activities. The experience's construct in this study includes business experience and position in the business. The hypothesis built was:

H2: Experience positively affects the partnership strategy (collaboration).

According to [15] state that the role of education is as value creation for competitive advantage through cost reduction, customer network, increased productivity, and work commitment. The level of education in a company is intellectual capital. According to [16] distinguished intellectual capital into three categories, namely (1) human capital: the level of education and human resource capacity of the company as managers and employees, (2) structural capital: the company's ability to save, maintain and convert specialization knowledge of HR into company performance, (3) customer capital: the knowledge that is shared between the organization and customers due to the establishment of good knowledge sharing so that reputation is high. The educational construct in this study includes the level of formal education and certification of expertise. The hypothesis built was:

H3: Education positively affects the partnership strategy (collaboration).

According to [17] define network as relationship capital or resources related to entities outside the company, including consumers, suppliers, government, and industry associations. According to [18] found that networking can accelerate innovation in small and medium companies. Through networking, a manager can access resources and knowledge in his network to accelerate the innovation process in the company. The networking construct in this study includes the

membership of SMEs in associations and business relations. The hypothesis built in this study was:

H4: Networking positively affects the partnership strategy (collaboration).

A company's performance is one of the essential constructs in management research [19]. Company performance is grouped into three categories [20] those are (1) financial performance (profit, ROA, ROI, etc.), (2) product marketing performance (sales, market share, etc.), and (3) shareholder return (value-added economy, etc.). To anticipate the unavailability of objective performance data in a study, it is possible to use subjective measures based on the manager's perceptions [21]. According to [22] show a close correlation between subjective and objective performance measures.

This study measures the performance of SMI's companies using subjective measurements based on the perceptions of company staff and managers on various dimensions of company performance measurement. The dimensions of the company's performance used are sales growth and profit growth. The hypotheses that are built are:

H5: Collaboration strategy has a positive effect on company performance..

## 2. METHODS

The population of this study is small and medium industry (SMI's) supporting industrial clusters in one of the small industrial areas in the city of Bandung. There are 53 SMI's in the area. The number of samples observed with an accuracy of 5% were 23 companies, and in this study, 30 SMI's were investigated. Data was collected by distributing questionnaires and interviews to the owners of SMI's or their management. To get a profile about the owners of SMI's, categorization is carried out based on age, gender, length of business, and activity in associations. Of the 30 respondents, there were 22 male entrepreneurs and eight female entrepreneurs. There were five entrepreneurs with less than ten years of experience, 14 people with 10-20 years of experience, and 11 entrepreneurs with more than 20 years of experience. Questions on the questionnaire include skills, experience, education, networking, collaboration strategies, and company performance.

The skill variable indicators used in this research are communication skills, managerial skills, and business insight skills. Experience indicators include business experience and position in the business. Educational variables are the last formal education level and expertise certification. The networking variable is involvement in business associations and relationships. The collaboration strategy variables include production cooperation and marketing network. The company's performance variable is measured by sales growth and

profit growth. All indicators were measured on a Likert scale of 1-5, with 1 representing strongly disagree and 5 representing strongly agree. The relationship between the variables is shown in Figure 1.

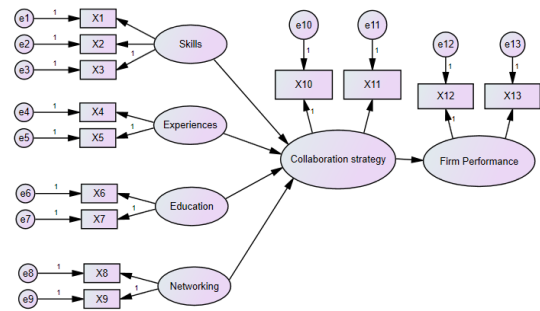


Figure 1. Research Model: The relationship between the variables

## 3. RESULTS AND DISCUSSION

Validity and reliability tests were conducted using a correlation formula of Pearson's Product Moment, and all the instruments were valid and reliable to be used in research. The research method was path analysis to test the strength of the direct and indirect relationships between the various variables.

The path analysis used was the trimming model's path analysis, which was used to improve a structural model by removing it from the model if the path coefficient variable is not significant. The path diagram of the influential variables is shown in Figure 2.

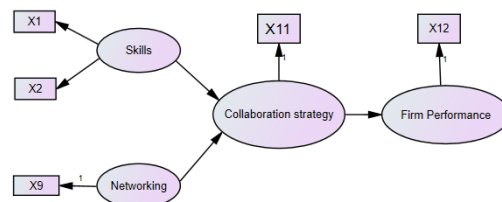


Figure 2. Research Model: The path diagram of the influential variables

Based on data processing with path analysis, found a number of path coefficients that are not significant. The path coefficient involving experience and education variables is not significant. This is possible because the variable has been represented by the skill variable. The influence of the skill variable with the communication indicator (X1) on the partnership strategy variable (collaboration) with the marketing network indicator (X11) directly was 32.4%, the skill variable with the managerial ability indicator (X2) was 3%, and the networking variable with the business relationship indicator (X9) was 2.5%. Thus, in total, X1 determines the changes in X11 by 37.8%. The influence of the skill

variable with managerial ability indicators (X2) on the partnership strategy variable (collaboration) with the marketing network indicator (X11) directly was 17%, the skill variable with the communication indicator (X1) was 3%, and the networking variable with the business relationship indicator (X9) was 1.8%. Thus, in total, X1 determines the changes in X11 by 21.71 %.

The effect of the networking variable with the business relationship indicator (X9) on the partnership strategy variable (collaboration) with the marketing network indicator (X11) directly was 14.7%, the skill variable with the communication indicator (X1) was 2.5%, and the expertise variable with the indicator managerial ability (X2) is 1.8%. Thus, in total, X1 determines the changes in X11 by 19 %. The variables X1, X2 and X9 together affect X11 by  $37.8\% + 21.7\% + 19\% = 78.5\%$ . The effect of the partnership strategy variable with the marketing network indicator (X11) on the company's performance variable with the sales growth indicator (X12) in total X11 is 16.4%.

The findings in this study are in line with the findings of previous research [18], that networking is needed by small and medium-sized companies to accelerate the innovation process. This study examined more deeply that there is also a need for continuous improvement of communication skills and managerial governance of SMI's owners/ managers in addition to networking. The need for expertise in building collaboration has also been mentioned [4,23,12]. This study has incorporated various findings in previous studies in a frame of mind in small and medium industries supporting industrial clusters.

#### 4. CONCLUSIONS

This study found that the partnership (collaboration) strategy was proven to affect the performance of SMIs. The success of the collaboration strategy is influenced by communication and managerial skills and the expansion of business relations (networking) from the owners/managers of SMI's. This finding shows that SMI's owners/managers need to continuously improve their skills in business communication, business management, and expansion of their business network.

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