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## How Information Technology and Sales Skills Improve Business Performance Mediated by Supply Chain Partnerships

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Information Technology  
Sales Skills  
Supply Chain Partnerships  
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### Abstract.

Information Technology (IT) and Sales Digitalization have become essential in numerous sectors in the recent age. This study aims to investigate the influence of Information Technology (IT) and Sales Skills (SS) on Business Performance (BP) in Micro, Small, and Medium Enterprises (MSMEs) with Supply Chain Partnership (SCP) as a mediating variable. The purposive sampling technique used included a sample size of 139 Batik textile Indonesian MSMEs. The Structural Equation Model was utilized for analysis and findings show that IT and SS do not affect BP when mediated by SCP, however, IT has a direct influence on BP. The findings support research related to IT role on BP but suggest that SCP has zero impact on BP. The generalization of the conclusions might be weak outside the MSME industry and developing countries. On the other hand, these findings support that MSMEs might increase their performance by adopting digital information technology.

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## 1. Introduction

Business performance determines the survivability of MSMEs in a given environment. MSMEs are a crucial component of the economy of several countries, and they provide a major boost to the country's GDP. However, MSMEs face a lot of challenges and sometimes are unable to perform to their desirable expectations. The research by Mabhungu and Van Der Poll [18] emphasizes that MSMEs need to re-evaluate their critical success factors to survive in highly competitive environments, considering how volatile their markets are. According to Chege et. al [6], and Nair et al. [22], the role of Information Technology (IT) and Supply Chain Partnerships (SCP) enhances business

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performance. To become globally competitive, IT adoption and SCP is an essential requirements for several businesses. In Micro, Small, and Medium Enterprises (MSME), SCP develops through good relations between supply chains connected to a network of collaborating companies. MSME entrepreneurs compete with large businesses both domestically and abroad following the ASEAN Economic Community (AEC) enactment at the end of 2015. MSMEs contribute primarily to the economy of a country or region, especially Indonesia. Furthermore, MSMEs' operations increase economic and social progress. The ability of entrepreneurs to add employment at a low cost of capital is a characteristic of the process.

In Indonesia, the batik industry, which includes small, medium, and large businesses in the creative industry category, has been experiencing significant development. Developments have arisen following recognition from UNESCO. Batik craft is a promising small and medium industry. In Indonesia, batik craftsmen are well-known and spread in the areas of Yogyakarta, Solo, Semarang, Rembang, Pekalongan, Sidoarjo, and Cirebon. The Ministry of Industry noted that there were 47,000 Batik Small and Medium Industries in Indonesia (2019) with a total of 199,444 workers (2015). The value of batik products is Rp. 4.746 trillion and the value of exports is Rp. 50.439 trillion. Unfortunately, since the Coronavirus Disease 2019 (COVID-19) pandemic two years ago, the batik craft industry has been sluggish. The Association of Indonesian Batik Craftsmen and Entrepreneurs noted that in Indonesia there are 151,656 batik craftsmen, but now only 37,914 are still active. This means that the pandemic has reduced the number of craftsmen by 113,742 people.

This research was conducted in Surakarta City, commonly referred to as Solo, Indonesia. This city was named the City of Creative Economics by UNESCO in 2013 because of the beauty of its batik. The growth of batik in Solo also experienced a remarkable increase. Surakarta City is also one of the largest producers in Central Java as reiterated by Sugiyanto [31]. This research is aimed at investigating the impact of information technology on business performance, the influence of supply chain partnership on business performance, the effect of sales skills on business performance, and lastly the mediating role of supply chain partnership on the effect of IT and Sales Skills to business performance is investigated. The study will be divided into the following sections; introduction, literature review, research methods, findings, research discussions, and conclusions respectively.

## **2. Literature Review**

### **2.1. Theoretical basis**

Competency in supply chain management provides a competitive edge to companies in this era. According to the Resource-Based View theory, Wittmann [5] emphasizes that a firm can develop a marketing edge due to commanding unique, precious, or costly resources in the environment. On the other hand, the firm can be competitive by using its limited resources to improve its performance. Supply chain relationships are valuable to businesses if developed strategically according to Hüseyinoğlu et al. [13] and Ngetich et al. [23]. In this section, the researchers discuss Supply Chain Partnership (SCP),

Sales Skills (SS), Information Technology (IT) concepts, and Business Performance (BP) before proposing a hypothesis.

### **2.1.1. Business performance**

Business performance is defined as deriving more economic value than other players in the industry in a research by Peteraf and Barney [25]. The joint work output of employees in different functions to attain individual goals of the organization affect business performance is stated by Chege et al. research [6]. Performance appraisal is a stage and process of assessing the implementation of individual tasks, groups of people, or work units within an organization or company by performance standards and predetermined goals expounded by Susanty et. al [32], Islam and Qamari [15]. According to Flynn et al. and Liu et al. [8, 17], business performance is improved when firms increase supply chain agility and supply chain integration.

### **2.1.2 Supply Chain Partnership**

A supply chain is an activity related to various parties, from raw materials to final products that end consumers can consume. Islam and Qamari [15] discuss that a supply chain is an essential element in developing company productivity. One of the primary functions of a supply chain partnership is trust according to Mofokeng and Chinomona [21]. Supply chain partnerships aid in building mutually beneficial relationships that enhance reliability among partners. The work of Shin et al. [30] finds a positive association between partnership commitment and business performance, although the rate varies depending on the partnership structure.

### **2.1.3 Information Technology**

Information technology includes software and hardware used in performing various data processing tasks such as retrieving, collecting, storing, manipulating, and displaying information and multiple data as defined by Adams et al. [1]. Information technology is critical for ensuring business processes run smoothly and may be assessed by four indicators; Xu and Croft identify effectiveness of transactions [34], Roscoe et al. mention support activities [29], Harney and Doshi specify speeding up services [11], and Prasetya and Taufan singles out business operation easiness [27, 32].

### **2.1.4 Sales skills**

Sales skills may include approach, search, require identification, product knowledge, presentations, objections, and closing sales according to Pettijohn et al. [26]. There are three sales frameworks in the sales concept, including approach, display, and closing. There are three indicators of the Sales skills variable: communication skills, ability to solve problems, ability to understand buyer needs, and ability to deliver products reliably and fast as mentioned by Bak et al. [4], Hunt and Yehuda [12]. Assessing the potential of sales and financial skills for business performance, Shin et al. [30] investigated 852 SMEs in South Africa. The researchers find both financial and sales skills are crucial drivers of the profitability of SMEs.

## 2.2. Micro small and medium enterprises

Micro-scale businesses in Indonesia are non-formal business activities and have not been developed as formal businesses and are still very significant compared to small, medium, and large-scale businesses. An increase in MSME leads to a reduction in Indonesia's unemployment rate and growth of the country's economic income. According to Law Number 20 of the Year 2008 concerning Micro, Small, and Medium Enterprises (MSMEs), SMEs are productive businesses owned by individuals, groups, or individual business entities. The potential of micro, small, and medium enterprises and cooperatives in Indonesia is enormous. The Central Statistics Agency [14] shows that the number of MSMEs is around 52 million MSMEs or 99.8%. Second, employment is approximately 96 million or 97.90%. Third, utilize 56.53% of the total money in circulation. Fourth, MSMEs contributed 56.17% of GDP and 17% of non-oil and gas exports.

## 2.3. Hypothesis development

### 2.3.1. The influence of information technology on business performance

Information technology (IT) has become something important in the conduct of business. Various types of companies both large and small scale utilize Information Technology to support activities that are needed to improve business services to facilitate and accelerate the service process. This is indicated by the presence of applications and services for e-business, e-commerce, e-banking, and others. By implementing IT, time and cost efficiency will be obtained which will also have an impact on work habits. The spread of information technology such as the internet can significantly affect the three dimensions of business performance. Research by Chege et al. [6] has proven that technology has a positive effect on business performance. Based on these findings, hypothesis 1 states:

**H1:** Information technology positively influences business performance.

### 2.3.2. The effect of supply chain partnerships on business performance

Strategic supplier partnerships identify optimal practices that can facilitate supply chain alignment and integration. To further accelerate collaboration, it is necessary to implement the latest collaborative information systems that drive efficiency, performance, and quality throughout the supply chain. Several previous works like Rezaei et al. [28] dictate that different aspects of supply chain partnerships accelerate performance. The researchers identify boosted cost efficiencies as a leveraging advantage in the business-supplier collaboration aspect. In addition, the business-customer relationship aspect cements MSMEs' sales through the constant sharing of information that assists demand forecasting. The inventory optimization aspect is enhanced through stronger business ties and close customer and supplier integration and growth are enhanced in business operations as innovation is a seed of supply chain relationships. Based on this opinion, hypothesis 2 states:

**H2:** Supply chain partnership positively influences business performance.

### 2.3.3. The effect of sales skills on business performance

Business practices should be designed based on various parameters within a supply chain to improve distributors' and suppliers' relationships. Building relationships between buyers and suppliers can be very effective; supplier relationship elements such as cooperation, long-term commitment, and Information sharing can ultimately improve business performance [24]. On the other hand, Anderson et al. [3] report that the sales and financial aspects of businesses improve their performance. Anderson further notes that there is a difference in the needs of marketing and sales expertise depending on the size of the firms. Large firms with established businesses generally generate more profits if they shift most of their focus to financial skills. In contrast, smaller businesses for example MSMEs rely more on sales and marketing skills to grow and generate more profits because they have less exposure to different markets which they might benefit from. Based on the opinions and findings above, hypothesis 3 states:

**H3:** Sales skills positively influence business performance.

### 2.3.4. The effect of supply chain partnerships on business performance

2.3.4 The Effect of Information Technology on Supply Chain Partnerships. Several studies have shown that the degree of interdependence between trading partners can benefit from information technology. However, empirical evidence in this area is scarce. In research theory, Benton et al. [5] states that partner interdependence is positively related to the information transferability level in supply chain relationships. According to recent studies by Mitic et al. [20], the level of information can be a determinant and accelerator of business performance, as elaborated from its research of 102 Serbian companies. Information technology is a pre-requisite for many businesses nowadays and it has a superior value. As discussed by Gumilang information technology has a positive correlation to supply chain partnerships. According to Gumilang [9], the back-end application technology feature has the highest effect on supply chain partnership besides technology use and front-end application following respectively. In studying the relationship between information technology and supply chain partnerships, as well as business performance, two hypotheses state:

**H4:** Information technology positively influences supply chain partnership.

**H5:** Information technology positively influences business performance mediated by supply chain partnerships.

### 2.3.5. Effect of sales skills on supply chain partnerships.

According to the research results of Agrawal and Lacroix [2], the relationship between sales skills and supply chain partnerships is positive. The sales skills possessed by small and medium industries can positively impact the relationship between suppliers, producers, and customers in cooperation ties because they have to meet consumers' needs. Sales skills are part and parcel of supply chain management development and are continuously important to the field. Soft supply chain skills are proving to be more useful than hard skills in the supply chain context according to Bak et al. [4]. Soft skills

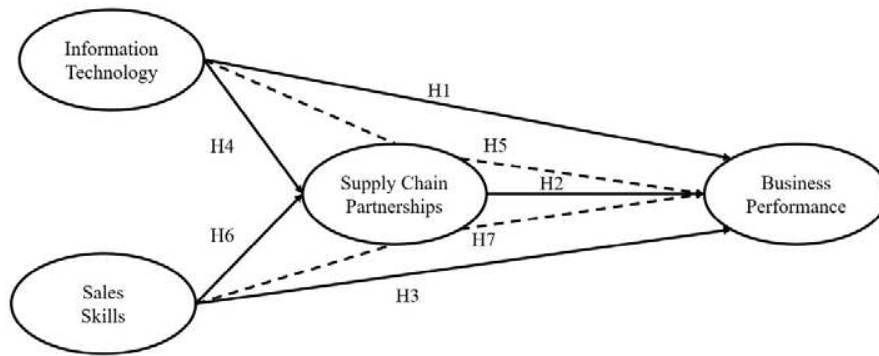


Figure 1: Conceptual Model.

are generally more personality-based (for example communication skills) as compared to hard skills, which often refer to knowledge within a field for example inventory management. Amongst behavioral, management, and negotiation skills, behavioral skills are highlighted to be the most needed in the supply chain context. Based on these opinions, two hypotheses state:

On the other hand, sales skills are linked to business performance

**H6:** The Sales skills positively influence supply chain partnership

**H7:** The Sales skills positively influence the Business Performance mediated by supply chain partnerships

### 3. Research Methods

The subjects in this study were the owners/managers of Batik MSMEs. They are located in Kampung Batik Laweyan and Kauman Surakarta. They had experience using information technology in their MSMEs operations, such as Whatsapp, Instagram, and Facebook. The study only uses primary data. The data collection techniques used in this research are the survey method and purposive sampling. The questionnaires distributed to respondents were 258; however, a total of 139 questionnaires were filled. The response rate was 53,87%. Out of 139 questionnaires, only 122 questionnaires were filled. The statements in this questionnaire were made using a Likert scale of 1-5 (1 strongly disagree, 5 strongly agree) to obtain interval data and generate a score.

This study explains the relationship between four variables: Information Technology, Supply Chain Partnerships, Sales Skills, and Business Performance. According to Mitic et al. [20], Information Technology measurement can be determined by four indicators: transaction effectiveness (IT1), support activities (IT2), fastened services (IT3), and ease of operating business activities (IT4). Sales Skills are measured using four indicators: communication skills (SS1), decision-making skills (SS2), the ability to understand and satisfy buyer needs (SS3), and the ability to help ensure the delivery of goods quickly and reliably (SS4) as expounded by Pegah [29]. There are four indicators of Supply Chain Partnerships: quality of raw materials supplied by suppliers (SCP1), a good relationship

between the MSMEs and suppliers (SCP2), ease of MSMEs in obtaining raw materials (SCP3), and the existence of cooperation between SMEs and suppliers (SCP4) explained by Martel and Walid [30]. Business Performance is the work that can be achieved by MSME owners/managers regarding sales activities (BP1), assets managed (BP2), market share (BP3), and profits (BP4) according to Exposito and Sanchis-Llopis [7].

## 4. Findings

### 4.1. Descriptive analysis

The majority of respondents were female, accounting for 59%. In contrast, the remaining 41% of the respondents are male. Both men and women account for a total of 122 respondents. There are 4 Education-level groups included in the table below; junior high school graduates, high school or vocational high school graduates, diploma graduates, and bachelor graduates.

Table 1: Descriptive Data.

Item	Qualification	Frequency	%	Item	Qualification	Frequency	%
Gender	Female	72	59%	Age (years old)	< 21	9	7.3%
	Male	50	41%		21 ~< 31	42	34.4%
Education Level	Junior high school	2	1.6%		31 ~< 41	40	32.8%
	High school	79	64.8%		41 ~< 51	14	11.5%
	Diploma	2	1.6%		51 ≤	17	14%
	Bachelor	39	32%	Social Media used	Instagram	36	29.5%
Operation Length (years old)	< 5	9	7.4%		Facebook	2	1.6%
	5 ~< 9	28	23%		WA	46	37.7%
	9 ~< 14	47	38.5%		Instagram & WA	17	14%
	14 ~< 19	21	17.2%		Facebook & WA	6	5%
	19 ~< 24	10	8.2%		Instagram & Facebook	11	9%
	24 ~< 29	2	1.6%		Instagram, FB & WA	4	3.2%
	29 ~< 34	4	3.2%				
	34 ≤	1	0.9%				

The majority of respondents are high school/vocational high school graduates accounting for 64.8%, followed by undergraduates with 32%, Diploma and junior high school come last with 1.6% of the total respondents. The age range of respondents aged 21-30 years and 31-40 years account for the most significant percentage. Long operating businesses are mainly in the age range of 9-13 years old (38.5%). In contrast, the minimum number of enterprises in the age range belonging to WhatsApp has the highest percentage of social media users with 37.7%, followed by Instagram with 29.5%. In comparison, Facebook comes last with 1.6%.

### 4.2. Structural Model

Table 2 demonstrates that the loading factor values for all constructs are more than 0.5, indicating that all variables' indicators adequately describe the constructed

Table 2: Construct Reliability, Variance Extract, and Discriminant Validity.

Indicators	Loading factor	(Loading factor) <sup>2</sup>	1 - (Loading factor) <sup>2</sup>	CR	VE	DV
IT1	0.973	0.947	0.053	0.967	0.516	0.718
IT2	0.950	0.903	0.098			
IT3	0.929	0.863	0.137			
IT4	0.901	0.812	0.188			
Total	3,753	3,524	0.476			
SS1	0.776	0.602	0.398	0.914	0.536	0.732
SS2	0.658	0.433	0.567			
SS3	0.971	0.943	0.057			
SS4	0.974	0.949	0.051			
Total	3,379	2,927	1.073			
SCP1	0.910	0.828	0.172	0.978	0.511	0.715
SCP2	0.971	0.943	0.057			
SCP3	0.978	0.956	0.044			
SCP4	0.969	0.939	0.061			
Total	3,828	3,666	0.334			
BP1	0.854	0.729	0.271	0.955	0.521	0.722
BP2	0.952	0.906	0.094			
BP3	0.898	0.806	0.194			
BP4	0.962	0.925	0.075			
Total	3,666	3,367	0.633			

variables. This signifies that all indicators utilized in this study are valid since they meet the requirements of convergent validity. The following test will establish the value of Construct Reliability (CR), Variance Extract (VE), and Discriminant Validity (DV). The CR, VE, and DV test results have met the suggested standards, with a construct reliability value greater than 0.70, an extract variance value greater than 0.50, and a discriminant validity value greater than 0.70.

The fit indices of the model showed that the measurement model was valid. Structural equation modeling (SEM) examined the fit indices and the estimates explained by the variance according to Harisno and Herby [10].

### 4.3. Results (hypothesis testing)

Initial testing presents the results of the model goodness index showing the value of Chi Square= 256.845; AGFI= 0.733 GFI= 0.808; TLI= 0.924; CFI= 0.933; NFI= 0.904; CMIN/DF= 2,621; PGFI= 0.582; PCFI= 0.766; and RMSEA= 0.116. This model still shows some marginal numbers such as chi-square, AGFI, and GFI. It is necessary to remove outliers to fix the problem.

A total of 122 data were processed, and some data indicated as outliers were identified. After analyzing the outliers data, 8 data were removed so that 114 data were reanalyzed. The findings of hypothesis testing in Table 3 indicate that IT does not affect



Table 3: First Revision of Regression Weights Full Model.

			Estimate	S.E.	C.R.	P	Label
SCP	←	IT	,040	,066	,615	,539	par_12
SCP	←	SS	,697	,100	6,976	***	par_17
BP	←	SCP	,100	,153	,656	,512	par_13
BP	←	SS	,121	,167	,724	,469	par_14
BP	←	IT	,440	,108	4,097	***	par_15
IT4	←	IT	,913	,043	21,165	***	par_1
IT3	←	IT	,943	,038	25,057	***	par_2
IT2	←	IT	,978	,028	35,130	***	par_3
IT1	←	IT	1,000				
SS 4	←	SS	1,374	,107	12,797	***	par_4
SS 3	←	SS	1,323	,106	12,427	***	par_5
SS 2	←	SS	1,129	,146	7,753	***	par_6
SS 1	←	SS	1,000				
SCP1	←	SCP	1,000				
BP 1	←	BP	1,000				
BP2	←	BP	1,186	,079	15,024	***	par_7
BP3	←	BP	1,065	,083	12,880	***	par_8
BP4	←	BP	1,157	,074	15,542	***	par_9
SCP3	←	SCP	1,112	,046	23,952	***	par_10
SCP4	←	SCP	1,105	,049	22,721	***	par_11
SCP2	←	SCP	1,072	,051	21,115	***	par_16

SCP; The seller's skills have a significant effect on the SCP; SCP has no impact on BP; SS does not affect BP; IT has a substantial effect on BP. The test findings indicate that the CR value is greater than 2 or the probability is less than 0.001 ( $p = ***$ ), indicating that the research variables have a substantial impact on the dimensions of the generated latent components.

This complete model analysis examines the constructs of Information Technology (IT), Sales Skills (SS), Supply Chain Partnerships (SCP), and Business Performance (BP) by eliminating one indicator in each variable and still using 114 data obtained from the first revision.

The omitted indicators include supporting business activities from the Information Technology (IT) variable, communication skills from the Sales Skills (SS) variable, the existence of cooperation between companies and suppliers from the Supply Chain Partnership (SCP) variable, and Sales Growth from the Business Performance (BP) variable. The figure above shows the loading factor value displayed is already above the number 0.5, which means it is considered fit, so it doesn't need to be dropped again.

Data analysis used SEM AMOS 20 with 12 indicators and 114 respondents showed the value of Chi Square= 65.787; Probability= 0.45; NFI= 0.968; GFI= 0.912; AGFI= 0.857; TLI= 0.988; RMSEA= 0.057; CFI= 0.991; CMIN/DF= 1.371 where all parame-

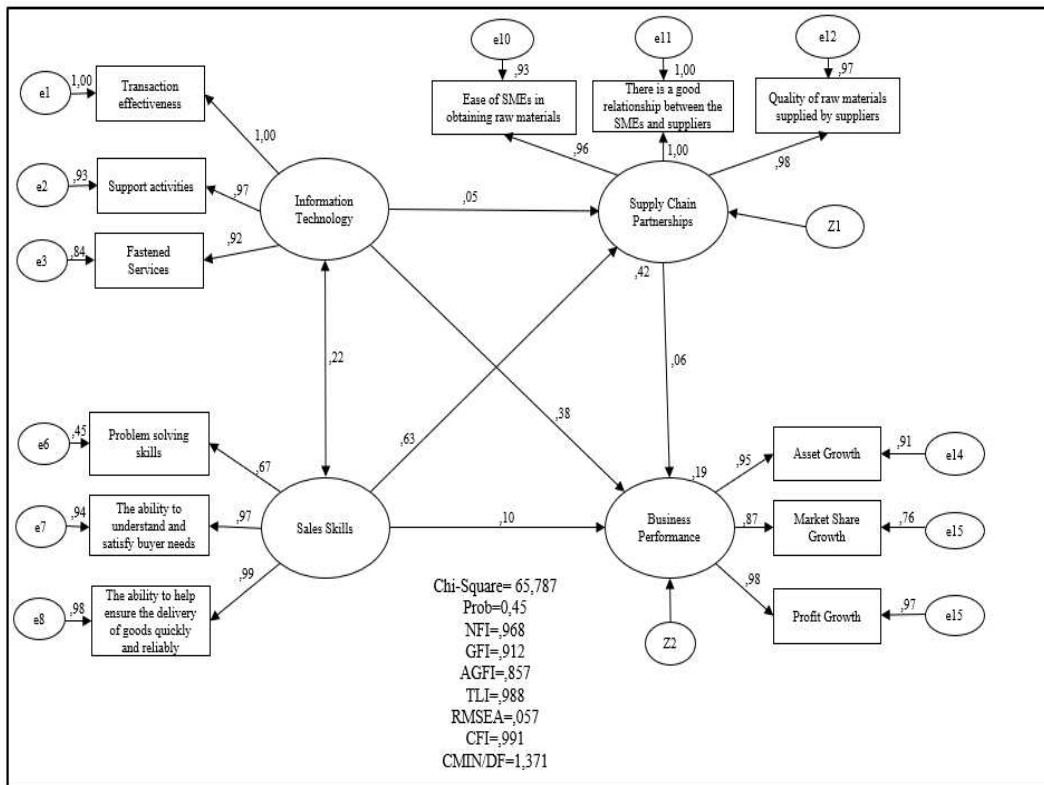


Figure 2: Full Model Second Revision.

ters have met the required limits so that in general it is considered a good model even though there are still marginal values such as Chi Square and AGFI.

A model is said to be good if the calculated Chi-Square ( $\chi^2$ ) value is low; the lower the value, the better the model is considered. In other words, the research model being analyzed is in accordance with empirical evidence data. The results of data processing show the value of Chi-Square ( $\chi^2$ ) = 65.787.

Table 4: Model Fit Summary CMIN.

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	30	65.787	48	0.045	1.371
Saturated model	78	,000	0		
Independence model	12	2078,507	66	,000	31,493

GFI or Goodness of Fit Index is a model suitability index calculated by the residual square of the predicted model compared to the actual data. An index number with a value of 0.90 or close to 1 means that the model will get better. The GFI value from the results of this research is 0.912, which means that it has met the recommended limit.

Table 5: Model Fit Summary RMR, GFI.

Model	RMR	GFI	AGFI	PGFI
Default model	,024	,912	,857	,561
Saturated model	,000	1,000		
Independence model	,147	,279	,147	,236

Adjusted Goodness of Fit Index is a modified index of GFI which means that AGFI is a GFI that is adjusted to the ratio of the degree of freedom of the proposed model to the degree of freedom of the null model, the recommended value is 0.90, and the results of data processing from the table below, AGFI = 0.857.

## 5. Discussion and Conclusion

### 5.1. Hypothesis Testing 1

*“Information technology positively influences business performance.”*

Parameter estimation is 0.514, the standard error is 0.122, and the critical ratio is 4.219 with probability \* \* \*. The results of these statistical values 00 indicate that the probability of \* \* \* which means it is very significant where the null hypothesis (H0) is rejected or the alternative hypothesis (Ha) is accepted. So the hypothesis which states that the better information technology (IT), the better the business performance (BP) is proven and very significant. The results of this analysis support previous research like Chege et al. paper [6], whose research has proven that information technology has a significant effect on a business or business performance. In addition, the critical role of information technology can improve overall business performance both in terms of sales and assets because of the role of information technology as an asset itself and the part of information technology that can increase the amount of production to meet consumer demand. In the Batik MSMEs, it is proven that almost all enterprises are boosted by social media, which acts as a medium of information technology that can increase sales easily, practically, and fast.

### 5.2. Hypothesis Testing 2

*“Supply chain partnership positively influences business performance.”*

The estimated parameter is 0.085, the standard error is 0.166, and the critical ratio is 0.513 with a probability of 0.608. From the results of these statistical values, it shows that the probability is 0.608 which means it is not significant at = 5% where the null hypothesis (H0) is accepted or the alternative hypothesis (Ha) is rejected. So the hypothesis which states that the better the Supply Chain Partnership (SCP) the better the business performance (BP) is not influential. The results of the analysis above are consistent with previous research, namely the research of (Anggini), wherein the minor hypothesis (A) it can be concluded that the supply chain relationship variable has an insignificant effect on company performance because the results obtained are p-value of

0.466, with a value of 0.466. the beta of 0.177. Thus, it can be concluded that the minor hypothesis (A) is rejected because the p-value is  $> 0.05$ . Establishing cooperation or close relationships between supply chain actors likely will not significantly impact the course of business activities carried out by the owners or managers of MSMEs. It is very reasonable that they are constantly changing distributor partners or suppliers to be more profitable for the production of their goods to the maximum.

### 5.3. Hypothesis Testing 3

*“Sales skills positively influence business performance.”*

The estimated parameter is 0.150, the standard error is 0.173, and the critical ratio is 0.867 with a probability of 0.386. From the results of these statistical values, it shows that the probability is 0.386 which means it is not significant at  $= 5\%$  where the null hypothesis ( $H_0$ ) is accepted or the alternative hypothesis ( $H_a$ ) is rejected. So the hypothesis states that the better the Sales Skills (SS), the better the Business Performance (BP) has no effect. The results of the above study are not in line with previous research, namely the research of Pettijohn et al. [26], which showed that the ability to sell outlets proved to have a significant positive effect on outlet sales performance. Based on this analysis, Sales skills are not the main thing that can improve business performance in batik SMEs. Possible things that affect business performance can come from other things such as the use of information technology, advertising, promotions, and others.

### 5.4. Hypothesis Testing 4

*“Information technology positively influences supply chain partnership.”*

The estimated parameter is 0.048, the standard error is 0.069, and the critical ratio is 0.687 with a probability of 0.492. From the results of these statistical values, it shows that the probability is 0.492 which means it is not significant at  $= 5\%$  where the null hypothesis ( $H_0$ ) is accepted or the alternative hypothesis ( $H_a$ ) is rejected. So the hypothesis states that the better information technology (IT), the better the supply chain partnership (SCP) has no effect. Every business person, whether from the manager's side or business owner, or MSME, does not always take advantage of the sophistication of information technology in establishing ties of cooperation with supply chain actors. However, more frequent visits or face-to-face meetings can increase trust and intimacy, which is expected to support cooperative activities to benefit each other. This is not in line with previous research, namely the research of Kim [16], which argues that partner interdependence is positively related to the level of information transferability in supply chain relationships.

### 5.5. Hypothesis Testing 5

*“Information technology positively influences business performance mediated by supply chain partnerships.”*

In the results of this analysis, the Sobel test cannot be carried out because only information technology has a significant effect, but there is no influence from information technology on supply chain partnerships because the probability results are too high. The

owners or managers of batik MSMEs may tend to use information technology facilities in the form of social media as things that only play a role in increasing their market reach or increasing sales and profits from these businesses. The results of this study are not in line with previous research, namely research from Kim [16] which has proven that information technology has an indirect effect on operational performance through supply chain collaboration as an intervening variable with the object of research being manufacturing companies in Indonesia which are also processed by the program AMOS 21.

### 5.6. Hypothesis Testing 6

*“Sales skills positively influence supply chain partnership.”*

Estimated parameter is 0.647, standard error is 0.103, critical ratio is 6.281 with probability \*\*\*. From the results of these statistical values indicate that the probability of \*\*\* which means it is very significant where the null hypothesis (H0) is rejected or the alternative hypothesis (Ha) is accepted. So the hypothesis which states that the better the seller's skills (SS), the better the supply chain partnership (SCP) is proven and very significant. The hypothesis follows the research results of Xu and Croft [34], which prove that Sales skills have a significant positive relationship with supply chain partnerships. It indicates that sales skills possessed by SMEs such as the batik industry can positively impact improving the relationship between suppliers and producers and customers in a cooperative bond. This is because the needs desired by consumers can be met precisely and quickly.

### 5.7. Hypothesis Testing 7

*“Sales skills positively influence business performance mediated by supply chain partnerships.”*

In the results of this analysis, the Sobel test cannot be carried out because only the expertise of the seller has a significant effect on supply chain partnerships but there is no effect of the seller's skills on business performance because the probability results are too high. This can happen because not all consumers have the same characteristics, for example, some consumers like sellers who actively offer goods and provide information related to these products so that they are interested in buying them, but there are also those who prefer to see or buy products by enjoying a calm atmosphere. without being bothered by sellers who always promote their products and only ask to be explained when the consumer asks. The results of this study are not in line with the research The results of this study are in line with previous research conducted by Bak et al. [4] Harisno and Herby [10], and Hunt et al. [12], which proves that supply chain partnerships affect the performance of companies.

## 6. Discussion and Conclusion

This research was conducted to deepen the understanding of several concepts related to the relationship of 4 variables, namely Information Technology, Sales Skills, Supply

Chain Partnerships and Business Performance. The findings of this study have implications for theoretical and practical perspectives. Analysis using structural equation modeling found that of the seven hypotheses proposed, only two were supported. The study's findings can be summed up as follows: 1) Information Technology has a significant positive effect on Business Performance; 2) Supply Chain Partnerships have no effect on Business Performance; 3) Sales skills have no effect on Business Performance; 4) Information Technology has no effect on Supply Chain Partnerships; 5) Information Technology has no effect on Business Performance mediated by Supply Chain Partnerships; 6) Sales Skills have a significant positive effect on Supply Chain Partnerships; and 7) Sales skills have no effect on business performance mediated by Supply Chain Partnerships.

The theoretical implications of this study have proven that Information Technology has a significant positive effect on Business Performance, indicating that the better Information Technology will further improve Business Performance. In addition, Sales Skills has a significant positive impact on Supply Chain Partnerships, which means that more skilled sales people will have a positive impact on supply chain partnerships. From a practical perspective, the relationship between information technology variables and business performance provides clear evidence that advances in information technology will drive business performance. Likewise, proving that good sales skills will encourage supply chain partnerships. For MSME owners and managers, this evidence provides advice in MSME management to pay attention to advances in information technology and sales skills.

The implication of this study is that the supply chain relationship is not proven to mediate the influence of information technology and sales skills on business performance. Some indications that are considered are that the implementation of information technology has not been well-systemized between MSME and supply chain partnerships, as well as sales skills that have not been integrated into a system. In the future, the integration of a supply chain system should be carried out so that the implementation of supply chain partnerships is included in a well-systemized network.

Future research should involve a supply chain system that has been integrated with MSME through a digital business that can reach all stakeholders. This study has not been able to prove empirically, because the object of study has not all implemented supply chain partnerships with the support of information technology. Future studies can use longitudinal data to explain causality and interrelationships between important variables to improve business performance in the digital era.

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