

ROLE OF SUSTAINABLE SUPPLY CHAIN, MARKETING PERFORMANCE AND INFORMATION AVAILABILITY IN SUSTAINABLE BUSINESS PERFORMANCE

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ABSTRACT

The objective of this study is to examine the role of Sustainable Supply Chain (SSC), marketing performance and information availability in Sustainable Business Performance (SBP). Moreover, the mediating role of decision making was also examined. Therefore, the current study examined the relationship between SSC, marketing performance, information availability and decision making in SBP. Indonesian Small and Medium Sized Enterprises (SMEs) are the population of the current study. Questionnaires were distributed among employee of Indonesian SMEs. Data were assessed by using Partial Least Square (PLS). Results of the study found that SSC has positive effect on SBP. Increase in SSC increases the SBP among the Indonesian SMEs. Moreover, market performance also has positive effect on SPB. Both SSC and market performance has positive effect on decision making and SBP. However, information availability has no effect on decision making and SBP. Finally, decision making has positive effect on SBP.

Keywords: Sustainable Supply Chain, Marketing Performance, Information Availability, Decision Making, Sustainable Business Performance

INTRODUCTION

Business performance is the most crucial part of business success which requires to achieve at a certain level in the market. A successful business always has high business performance. Because the business performance is the major part of success. Rate of success among the business is not very much high because of the competitive market. In the recent decade competition is increasing among companies. Each field of business is full of competition because of various business competitors. Therefore, by examining the growing importance of business, the major concern of the current study is business performance (Haseeb, Hussain, Kot, Androniceanu & Jermsittiparsert, 2019; Haseeb, Hussain, Slusarczyk & Jermsittiparsert, 2019). This study considered an investigation on business performance because of the growing importance in the market. As various studies proved that in the field of business, certain business performance has major role (Altaf, Hameed, Nadeem & Arfan, 2019; Zehir, Karaboğa & Başar, 2020). Therefore, business performance is most crucial in these days which requires special intention by the companies as well as scholars.

Now a day, the simple term business performance is now changing due to the changes in the business market and due to the changing in the competition. Increase in competition require a most reliable business performance. In the increase in competition, business performance is required for a longer period of time. Short term high performance by a business is not suitable to get success because competitors are increasing in the market which always require high level of business growth. Hence, in this direction, the simple business performance term is changed to the sustainable business performance. Sustainability in the business has most crucial role to survival. First of all, the business must achieve a performance (Attar, Gilaninia & Homayounfar, 2016),

secondly, the business should sustain this performance for longer period of time to compete with the competitor. Short term increase in the business performance is not sufficient in the current dynamic market. Sudden increase or sudden decrease in the business performance is never favorable for any business in the market. As ups and downs in the performance is not good sign for the business success. In this market, a business is always required sustainability in the performance. After achieving the higher level in the business performance, the sustainability is another step which is quite tough for the companies. To sustain with a higher performance and to be the top in competitive market is really important for the business. In this direction, the sustainability in the business cannot be neglected (Gong, Simpson, Koh & Tan, 2018).

The business performance sustainability is one of the common issues among the companies. Most of the companies cannot sustain in the business performance. Although businesses can achieve the better objective in terms of performance, however, these businesses cannot sustain the high performance for a longer period of time. Most of the times companies achieve better performance in the market, however, this performance remains for a very short period of time and after short period of time, business lose their performance which shows negative role on the level of business success. Those businesses which maintain business sustainability for longer period of time generally get success in such as competitive market (Iqbal & Kousar, 2018). The issue of business performance sustainability is very common in Indonesian Small and Medium Sized Enterprises (SMEs). Indonesian SMEs cannot sustain a better business performance which shows negative effect on their success rate. Short term business sustainability decreases the rate of success for the SMEs. Low level of business performance sustainability among Indonesian SMEs have negative role in business activities and allow the competitor to compete with the business. Therefore, sustainability in the business performance is most crucial among the SMEs to get success and achieve higher position in the market (Fernando, Jabbour & Wah, 2019). Number of SMEs in Indonesia are increasing which has vital role in economy. The number of SMEs in Indonesia are given in Figure 1.



FIGURE 1
NUMBER OF SMES IN INDONESIA

However, the issues of SBP among the Indonesian SMEs can be resolved with the help of various factors. Various strategies have the ability to increase the sustainability in the business performance and increase the rate of success among the SMEs. According to the current study, business sustainability in relation to the high performance can be achieved with the help of supply chain activities. Better supply chain activities by the company in relation to the company inside operations and transfer of goods to the ultimate consumer is very important to get SBP for a longer period of time and increase success in competitive market. Therefore, supply chain has higher importance for the companies in terms of performance (Ul-Hameed, Mohammad, Shahr,

Aljumah & Azizan, 2019). Moreover, market performance is also a crucial factor for the companies to get SBP. Better information from the market can provide higher results in terms of business performance to make different strategies to get success. Another element which shows important role in business sustainability is information availability. Proper information availability from the market is also most important to get SBP with the help of better strategies. As the availability of information and business has key relationship

Therefore, objective of the current study is to examine the role of sustainable supply chain, marketing performance and information availability in SBP. Moreover, according to the current study decision making also has important role in SPB. Decision making is influenced by the supply chain, market performance and information availability, supply chain, market performance and information availability have major role in decision making which further has influence on SBP. Hence, this study examined the relationship between supply chain, market performance, information availability, decision making and SBP. Various studies have examined the SBP (Fernando et al., 2019; Manning, Braam & Reimsbach, 2019; Morioka, Bolis, Evans & Carvalho, 2017), however, this relationship is not examined by the previous studies.

LITERATURE REVIEW

SMEs are the major sector of industry which has vital role in other industries. This sector scientifically contributes to the economic development of local as well as national level. At local level, SMEs has significant role to enhance the economic condition of communities. As the SMEs sector has vital importance for the economic activities. The generation of economic activity has vital importance for the people living in various areas. These SMEs are the continuous source of income among various nations. At various levels, this sector is producing several benefits for the government as well as local people. SMEs are producing significant amount of revenue for the countries. Therefore, SMEs has vital role in the economic development among various countries (Ansori, Satalaksana & Widyanti, 2018; Hongbo, Lucien, Raphael & Boris, 2018; Chetthamrongchai & Jermstittiparsert, 2020).

In Indonesia, the SMEs sector also has vital importance. In the economy of Indonesia, the SMEs sector also laying vital role and contributing significantly to the nation's development. The role of SMEs at local level has positive effect on the collection of revenue which collectively effect on the economic development. There are number of factors which has effect on the SBP. To enhance the productivity of Indonesian SMEs, the performance should be enhanced. First, supply chain activities have vital importance for SMEs. The higher performance achievement of these companies should have better supply chain system. Second, market performance also playing vital role in SBP of SMEs. Because there is always fluctuation in the market performance. Sometime market remains supportive to the business in which business perform in better way, however, sometimes market cannot perform in right way which causes to decrease in the performance. Third, better performance is also required information's from the market, customers as well as suppliers. Therefore, external information is the key to the higher performance of SMEs. With the better information, companies can make the products as per the requirements of customers. Along with this, decision making also has vital role in SMEs performance. Figure 2 shows the relationship between supply chain, market performance, information availability, decision making and SBP.

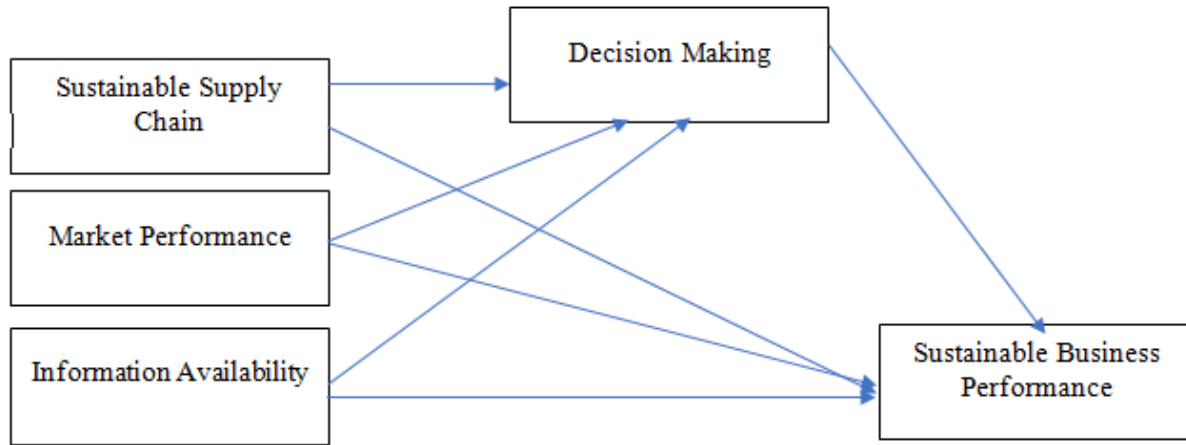


FIGURE 2
THEORETICAL FRAMEWORK OF THE STUDY SHOWING THE RELATIONSHIP
BETWEEN SUPPLY CHAIN, MARKET PERFORMANCE, INFORMATION
AVAILABILITY, DECISION MAKING AND SBP

SSC is the vital part of SBP among SMEs. Because supply chain is the backbone of various operations. Highest level of supply chain quality has vital role in business performance of SMEs. The consistent performance of supply chain also helps to maintain sustainable performance. Supply chain is important because it is connected with the business from raw material to finished goods and delivery to the ultimate customers. Weakness in supply chain play the negative role in the business activities which can decrease the overall performance. Generally, supply chain is based on two major areas. First the internal supply chain is based on the internal activities of the SMEs. For example, the supply of raw material to make various products. Delay in the supply of raw material can also delay the finished goods which causes to delay in the delivery to the customers. So, timely delivery is very important for the companies in case of raw material. As the raw material and supply chain has relationship (Hlioui, Gharbi & Hajji, 2015; Windisch et al., 2015). Along with this, supply chain also has important role in decision making. The relationship between decision making and supply chain has vital importance for the performance of business. Therefore, the relationship between supply chain and decision making is also given in literature (Cantor, Blackhurst & Cortes, 2014). Thus, SSC has positive role in decision making which further lead to the SBP.

Hypothesis 1: SSC has positive effect on decision making.

Hypothesis 2: SSC has positive effect on SBP.

Market performance is another important element which has influence on SBP and decision making. In each market, there is always condition favorable to the business or unfavorable to the business. The SMEs must understand the market conditions to take any decision. The correct decision taken by the companies lead to the positive outcomes which has positive role in performance of business. Decision making is based on several elements in which the market performance is one of the major variables. As given in the literature that decision making is most vital in business activities (Gabrielsson & Gabrielsson, 2013; Zolfani, Aghdaie, Derakhti, Zavadskas & Varzandeh, 2013). Therefore, in decision making process, the role of market performance has key importance. Furthermore, market performance also has direct

relationship with SBP. As the better market performance shows better results for any business, however, adverse market conditions show negative effect for business.

Hypothesis 3: Market performance has positive effect on decision making.

Hypothesis 4: Market performance has positive effect on SBP.

Another factor which has vital consideration for SBP is market information. Market information is based on the external information for the welfare of business. For instance, the information from suppliers can provide valuable insights for new product development as per the need of customers. Information from the market can provide the insights for strategic move. Customer is always need customized products, therefore, to produce customized products, it is needed to have better idea about the desire or need of customers. This information can be provided by various stakeholders. In this regard, market information or information availability can increase the decision-making ability. Valuable information from the market can enhance the power of quality decision making. As the market information has relationship with the business performance (Rodríguez, Montes, Fernández & Morant, 2018; Seo & Lee, 2019). Furthermore, information availability also has positive role in SBP. Increase in the market information availability has positive effect on SBP.

Hypothesis 5: Information availability has positive effect on decision making.

Hypothesis 6: Information availability has positive effect on SBP.

It is given that SSC has positive role in decision making. Market information availability and market performance also has positive role in decision making. In the current study, the role of decision making in SBP is explained. From the literature it is found that decision making has important role in SBP. Most importantly, it can be described that decision making is the central for business because in a competitive environment the strategic decision making is most important. Better decision-making lead to the business performance (Aydiner, Tatoglu, Bayraktar & Zaim, 2019). Therefore, in the current study, decision making is playing a mediating role which is reflect in the following hypotheses;

Hypothesis 7: Decision making has positive effect on SBP.

Hypothesis 8: Decision making mediates the relationship between SSC and SBP.

Hypothesis 9: Decision making mediates the relationship between market performance and SBP.

Hypothesis 10: Decision making mediates the relationship between information availability and SBP.

RESEARCH METHODOLOGY

The relationship between of SSC, marketing performance, information availability and decision making in SBP was examined by developing a questionnaire with the help of previously published studies in the field of SBP. All the variables, namely; SSC, marketing performance, information availability, decision making and SBP was measured with the help of already developed scales by the previous studies. For the collection of data, two techniques were used. First of all, the clusters were made by using the cluster sampling (Hameed, Mohammad & Shahar, 2018). Secondly, after making the clusters, simple random sampling was used (Kaur, Patil, Shirk & Taillie, 1996) for data collection. Employee of Indonesian SMEs was selected as the respondents of the current study. Questionnaires were distributed among Indonesian SMEs. In this process, Likert scale was preferred in which the respondents were asked to respond on five scale from strongly disagree to strongly agree. Data were assessed by using Partial Least Square (PLS).

Furthermore, the current study examined the errors in the data. After the detection of errors in the collected data, all the errors were removed from the data to ensure the maximum accuracy in the results. In this direction, errors in the data related to the missing value (Aydin & Şenoğlu, 2018) was examined and removed from the data after the proper evaluation. Hence, this preliminary analysis is given in Table 1.

	No.	Missing	Mean	Median	Min	Max	SD	Kurtosis	Skewness
SSC1	1	0	3.395	3	1	7	0.977	2.676	-0.225
SSC2	2	0	3.21	3	1	7	1.616	-0.073	0.331
SSC3	3	0	3.58	3	1	7	1.684	-0.202	0.277
SSC4	4	0	3.296	4	1	7	1.732	-0.463	0.242
SSC5	5	0	3.481	4	1	7	1.458	0.597	0.232
MP1	6	0	3.444	4	1	7	1.491	0.469	0.155
MP2	7	0	3.519	4	1	7	1.641	-0.049	0.231
MP3	8	0	3.741	4	1	7	1.53	0.272	0.154
MP4	9	0	3.667	4	1	7	1.75	-0.45	0.188
IA1	10	0	3.642	4	1	7	1.589	0.342	0.478
IA2	11	0	3.506	3	1	7	1.611	0.062	0.341
IA3	12	0	3.679	4	1	7	1.538	0.381	0.433
IA4	13	0	3.556	4	1	7	1.587	0.132	0.312
IA5	14	0	3.432	4	1	7	1.507	0.302	0.243
DM1	15	0	3.605	4	1	7	1.569	0.22	0.252
DM2	16	0	3.432	4	1	7	1.685	-0.148	0.222
DM3	17	0	3.543	4	1	7	1.508	0.178	0.136
DM4	18	0	2.802	3	1	5	1.116	-0.689	0.022
SBP1	19	0	2.914	3	1	5	0.996	-0.043	0.329
SBP2	20	0	3.012	3	1	5	0.923	0.097	-0.121
SBP3	21	0	3.074	3	1	5	0.991	0.365	0.081
SBP4	22	0	3.123	3	1	5	0.894	0.05	-0.354
SBP5	23	0	2.963	3	1	5	0.962	-0.368	-0.349
SBP6	24	0	2.914	3	1	5	0.971	0.018	0.259

Note: SSC="Sustainable Supply Chain"; MP=Marketing Performance; IA=Information Availability; DM=Decision Making; SBP="Sustainable Business Performance"

Research Findings

After initial data screening, this study started the data analysis to examine the relationship between variables. To examine the relationship between variables, data were analyzed first to test the reliability and validity. For this purpose, confirmatory factors analysis (CFA) was examined with the help of Partial Least Square (PLS) (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014; Hair, Ringle & Sarstedt, 2013; Hair, Sarstedt, Pieper & Ringle, 2012; Henseler et al., 2014). Figure 3 shows the CFA which is indicating that SSC is measured by using five scale items. Market performance is measured by using four scale items. Decision making is measured

by using four scale items. Information availability is measured by using five scale items and finally, SBP is measured by using six scale items. Results in Table 1 shows that factor loadings are above 0.7 for SSC, marketing performance, information availability, decision making and SBP.

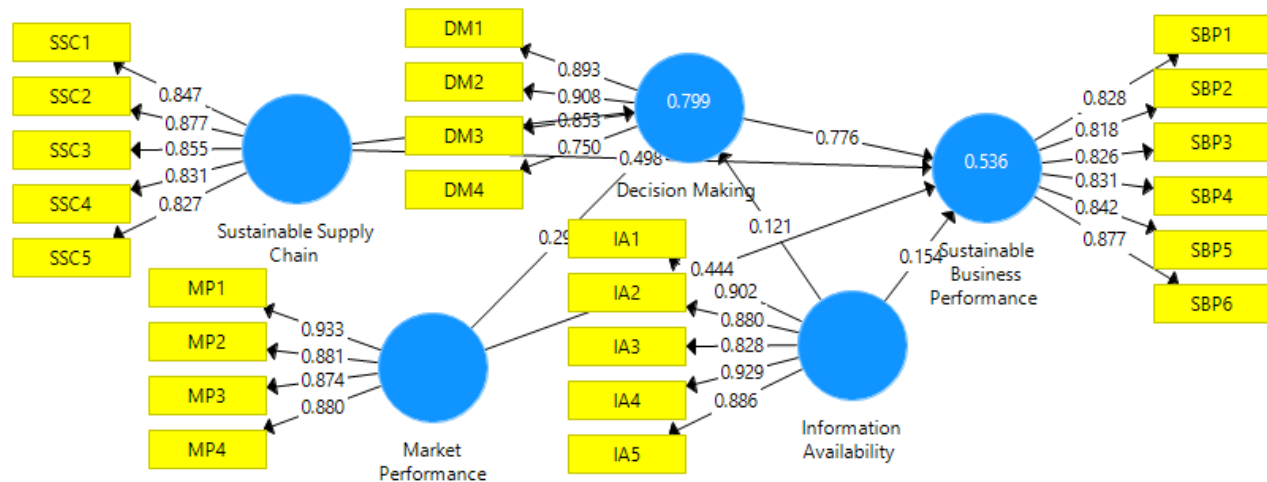


FIGURE 3
MEASUREMENT MODEL

	Decision Making	Information Availability	Market Performance	Sustainable Business Performance	Sustainable Supply Chain
DM1	0.893				
DM2	0.908				
DM3	0.853				
DM4	0.75				
IA1		0.902			
IA2		0.88			
IA3		0.828			
IA4		0.929			
IA5		0.886			
MP1			0.933		
MP2			0.881		
MP3			0.874		
MP4			0.88		
SBP1				0.828	
SBP2				0.818	
SBP3				0.826	
SBP4				0.831	

SBP5				0.842	
SBP6				0.877	
SSC1					0.847
SSC2					0.877
SSC3					0.855
SSC4					0.831
SSC5					0.827

Note: SSC="Sustainable Supply Chain"; MP=Marketing Performance; IA=Information Availability; DM=Decision Making; SBP="Sustainable Business Performance"

According to Hair, Hollingsworth, Randolph, and Chong (2017), composite reliability (CR) and average variance extracted (AVE) must be above 0.7. Table 3 shows that CR is above 0.7 for SSC, marketing performance, information availability, decision making and SBP. Furthermore, AVE is above 0.5 for SSC, marketing performance, information availability, decision making and SBP. Finally, discriminant validity was examined with the help of (Fornell & Larcker, 1981) instructions.

	Alpha	Rho_A	CR	(AVE)
Decision Making	0.873	0.873	0.914	0.728
Information Availability	0.931	0.933	0.948	0.784
Market Performance	0.915	0.918	0.94	0.796
Sustainable Business Performance	0.915	0.92	0.934	0.701
Sustainable Supply Chain	0.902	0.902	0.927	0.718

	Decision Making	Information Availability	Market Performance	Sustainable Business Performance	Sustainable Supply Chain
DM1	0.893	0.763	0.85	0.519	0.819
DM2	0.908	0.735	0.796	0.57	0.769
DM3	0.853	0.752	0.709	0.529	0.77
DM4	0.75	0.519	0.588	0.63	0.649
IA1	0.74	0.902	0.811	0.414	0.836
IA2	0.739	0.88	0.789	0.492	0.768
IA3	0.613	0.828	0.669	0.494	0.724
IA4	0.717	0.929	0.726	0.464	0.761
IA5	0.776	0.886	0.762	0.502	0.779
MP1	0.767	0.703	0.933	0.51	0.846
MP2	0.756	0.721	0.881	0.464	0.818
MP3	0.731	0.764	0.874	0.416	0.796
MP4	0.823	0.839	0.88	0.585	0.843
SBP1	0.653	0.466	0.486	0.828	0.534
SBP2	0.516	0.373	0.364	0.818	0.417

SBP3	0.537	0.336	0.372	0.826	0.447
SBP4	0.579	0.501	0.454	0.831	0.538
SBP5	0.573	0.482	0.506	0.842	0.55
SBP6	0.667	0.507	0.587	0.877	0.678
SSC1	0.753	0.711	0.739	0.613	0.847
SSC2	0.744	0.724	0.83	0.476	0.877
SSC3	0.727	0.771	0.742	0.532	0.855
SSC4	0.725	0.78	0.75	0.525	0.831
SSC5	0.789	0.72	0.665	0.545	0.827

Note: SSC="Sustainable Supply Chain"; MP=Marketing Performance; IA=Information Availability; DM=Decision Making; SBP="Sustainable Business Performance"

After the assessment of reliability and validity, the current study examined the relationship between SSC, marketing performance, information availability and decision making in SBP. The direct effect of SSC was examined on decision making. The direct effect of market performance was also examined on decision making. Moreover, the information availability was examined on decision making. The direct effect of decision making was examined on SBP. Finally, the direct effect of SSC, marketing performance and information availability was examined on SBP. These relationship between variables were examined with the help of PLS structural model as shown in Figure 4 (Hameed, Basheer, Iqbal, Anwar & Ahmad, 2018; Henseler & Chin, 2010; Henseler et al., 2014; Henseler, Ringle & Sinkovics, 2009). Results in the Table 5 shows that SSC has positive effect on decision making and SBP. Marketing performance has positive effect on decision making and SBP. Information availability has no effect on decision making and SBP. Decision making has positive effect on SBP.

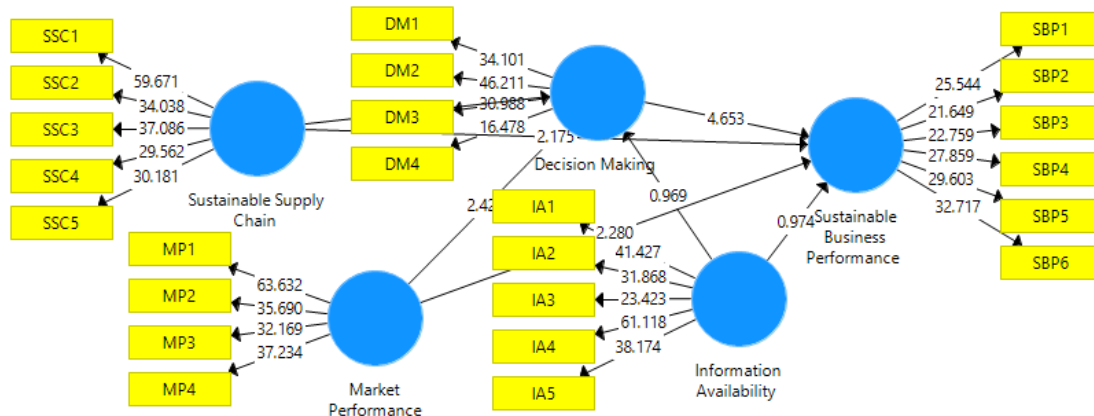


FIGURE 4
STRUCTURAL MODEL

	(O)	(M)	SD	T Statistics	P Values
Decision Making -> Sustainable Business Performance	0.78	0.76	0.17	4.653	0
Information Availability -> Decision Making	0.12	0.13	0.13	0.969	0.333
Information Availability -> Sustainable Business Performance	0.15	0.14	0.16	0.974	0.33

Market Performance -> Decision Making	0.29	0.3	0.12	2.423	0.016
Market Performance -> Sustainable Business Performance	0.44	0.45	0.2	2.28	0.023
Sustainable Supply Chain -> Decision Making	0.51	0.5	0.12	4.114	0
Sustainable Supply Chain -> Sustainable Business Performance	0.5	0.51	0.23	2.175	0.03

Mediation effect of decision making is given in Table 6. The mediation effect of decision making is examined between SSC and SBP. The mediation effect of decision making is examined between market performance and SBP. The mediation effect of decision making is examined between information availability and SBP. According to the results, mediation effect of decision making between SSC and SBP is significant with t-value 3.367. It shows that decision making reflect the positive effect of SSC on SBP. The mediation effect of decision making between information availability and SBP found t-value 0.977 which is not significant. Finally, the mediation effect of decision making between market performance and SBP is also not significant with t-value 1.95. Therefore, decision making does not reflect the positive effect of information availability and market performance. The rule of (Preacher & Hayes, 2008) was applied to examine the mediation effect. Mediation effect is also given in Figure 5. Finally, r-square value was examined which is 0.536. This r-square value is moderate (Chin, 1998) and showing that; SSC, marketing performance, information availability and decision making can bring 53.6% change in SBP.

Table 6					
INDIRECT EFFECT RESULTS					
	(O)	(M)	SD	t Statistics	P Values
Information Availability -> Decision Making -> Sustainable Business Performance	0.09	0.1	0.1	0.977	0.329
Market Performance -> Decision Making -> Sustainable Business Performance	0.23	0.23	0.12	1.95	0.052
Sustainable Supply Chain -> Decision Making -> Sustainable Business Performance	0.39	0.37	0.12	3.367	0.001

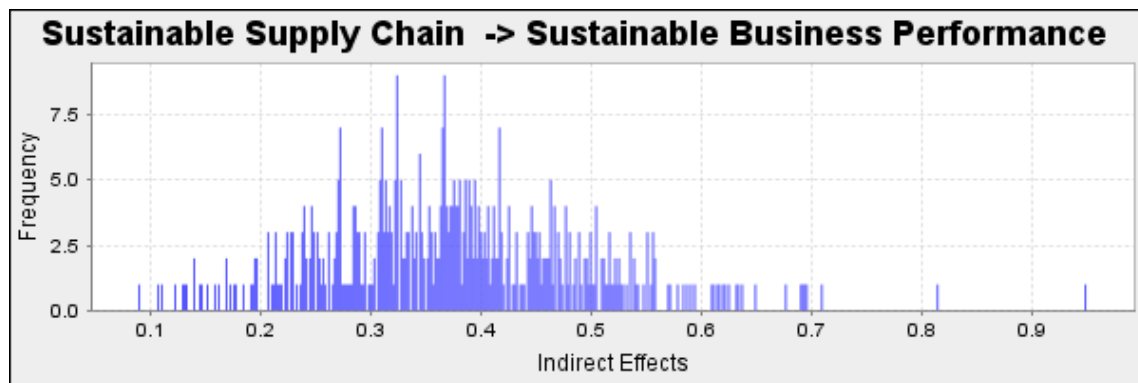


FIGURE 5
INDIRECT EFFECT: SUSTAINABLE SUPPLY CHAIN -> DECISION MAKING -> SUSTAINABLE BUSINESS PERFORMANCE

CONCLUSION

The objective of this study was to examine the role of SSC, marketing performance and information availability in SBP. For this objective, the current study examined the relationship between SSC, marketing performance, information availability and decision making in SBP. Indonesian Small and Medium Sized Enterprises (SMEs) are the population of the current study and data were collected from the employees of these companies. Results of the study found crucial role of SSC and marketing performance in SBP. It is found that SSC has most important role in SBP and it is the important element to enhance the SBP. Number of studies acknowledge that SBP is most important for the companies, in this direction this study add the valuable role of SSC.

Results of the study found that SSC has positive effect on SBP. Increase in SSC increases the SBP among the Indonesian SMEs. Better supply chain practices of the SMEs show positive effect on business activities of the SMEs and finally lead to the SBP. Furthermore, similar to the SSC, market performance also has positive effect on SPB. Increase in market performance increases the SBP. It has major influence on business performance among SMEs in Indonesia. Both SSC and market performance has positive effect on decision making and SBP. However, information availability has no effect on decision making and SBP. Any change in information availability has no effect on SBP. Moreover, it is found that SSC has positive effect on decision making among the SMEs. Increase in the decision making also increases the business performance sustainability which shows positive role on SBP. Market performance also has positive effect on decision making. Along with this, decision making has positive effect on SBP. Hence, SSC and market performance has positive role to enhance decision making among the SMEs which further increases the SBP.

Implications of the Study

This study has several theoretical implications. For instance, the relationship between SSC, marketing performance, information availability and decision making in SBP has vital role to contribute to the literature. This is the vital relationship between SSP and SBP which is not examined among the Indonesian SMEs. This relationship between SSP and SBP is very important to highlight among the Indonesian SMEs because this relationship was not examined previously in respect to the Indonesian SMEs, that is the reason this study contributed to the literature of Indonesian SMEs. Furthermore, this study contributed through mediating role of decision making. The mediation effect of decision making was examined between SSC and SBP. Moreover, the mediation effect of decision making was examined between market information and SBP. Finally, this study contributed through examining the mediating role of decision making between SSC and SBP.

Limitations of the Study

There are various other factors which has influence on SBP. For instance, market competition and investment decisions have major role in SBP. Market competition and investment have major contribution to different decision-making activities, that is the reason, these factors should be included in the study. Hence, future studies should include market competition and investment while examining the SBP. This study is also limited to the Indonesian SMEs, however, due to different market conditions, the future study should be carried out along with other countries.

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