

# Article

# Strategic Orientations and Absorptive Capacity on Economic and Environmental Sustainability: A Study among the Batik Small and Medium Enterprises in Malaysia

Noorshella Che Nawi <sup>1</sup><sup>[1]</sup>, Abdullah Al Mamun <sup>2,\*</sup><sup>[2]</sup>, Raja Rosnah Raja Daud <sup>1</sup> and Noorul Azwin Md Nasir <sup>1</sup><sup>[2]</sup>

- <sup>1</sup> Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Pengkalan Chepa, Kota Bharu 16100, Malaysia; norshella@umk.edu.my (N.C.N.); rosnah.d@umk.edu.my (R.R.R.D.); azwin@umk.edu.my (N.A.M.N.)
- <sup>2</sup> UCSI Graduate Business School, Faculty of Business and Management, UCSI University, Cheras, Kuala Lumpur 56000, Malaysia
- \* Correspondence: mamun7793@gmail.com or abdullaham@ucsiuniversity.edu.my; Tel.: +6-013-300-3630

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**Abstract:** This research intended to evaluate the effects of innovation orientation (INO), customer orientation (CSO), supplier orientation (SPO), network orientation (NWO), and absorptive capacity (ABC) on economic and environmental sustainability among the Batik small and medium enterprises (SMEs) in Malaysia. This study adopted a cross-sectional design and collected quantitative data using self-reported adopted scales from 213 randomly selected Batik SMEs from Kelantan and Terengganu, Malaysia. The results revealed that INO, CSO, and ABC had a positive and significant effect on the economic sustainability (ECS) of the Batik SMEs in Malaysia. The effects of SPO and NWO on ECS were positive but not statistically significant. It was found that ECS significantly and positively affected the environmental sustainability (ENS) of the Batik SMEs in Malaysia. Besides that, ECS mediated the effects of CSO and ABC on the ENS of the Batik SMEs in Malaysia. Furthermore, important performance matrix analysis revealed that the most important factors for ENS were Batik SMEs' ECS, absorptive capacity, and INO. For the performance of ENS, the most important factors were CSO, SPO, and NWO. The Batik SMEs and entrepreneurial development programs and policies should focus on innovation and CSO as well as improving ABC to sustain in today's competitive business environment.

**Keywords:** innovation orientation; customer orientation; supplier orientation; network orientation; capacity; sustainability

# 1. Introduction

Sustainability is important for current society. The responsibility to protect the environment is a mutual and far-reaching objective compared to firms' concern for profit [1]. Society at large is aware of its obligation towards ecological issues [2]. Large firms are performing corporate social responsibility (CSR) activities to perform their duties toward the society and environment [3]. However, SMEs did not have a framework as a guide to perform their duties towards the environment [4]. Moreover, sustainability goal achievement is the most common goal as humans are responsible for the degradation of the environment as a result of industrial development in the 20th century [5].

Sustainability is not a generally accepted issue in SMEs [2]. Sustainable business practices should develop to achieve sustainability at the economic, social, and environmental levels [1]. The shift in



firm practices requires careful consideration and changing the mindset that the firms are running their businesses with [6]. SMEs are important in developed and developing economies and they are considered to have the potential for national economic growth [7]. The primary concern that guides SMEs is the firm's profitability, in which performing environmental and social activities are considered costs that severely damage the firm's profitability objectives [8]. The win-win notion is to focus on achieving economic ends without compromising the environmental factor. The degradation of the environment is caused by humans [1]. It is believed that the effective way to reduce the negative impact of economic development on the environment is the mutual responsibility of large and small firms [2]. Most business firms concentrate on multiple objectives that undermine the effective way to manage their business by neglecting environmental concerns to achieve economic objectives [1]. However, firms should develop strategic links with the stakeholder and sustain business success while being concerned with the environment in general [6,8]. It is quite challenging for SMEs to achieve their business goals and preserve the environment at the same time.

Malaysian SMEs are significant contributors to economic development as they contribute 98% of the GDP, as well as 63% of employment and about 21% of export contributions are by the SME sector [9]. Achieving sustainability of SMEs relies on the financial performance of SMEs [2]. The Batik industry is engrained in Malaysian antiquity and established in rewarding the cottage industry [2]. The Malaysian Batik gained its popularity among the locals and foreigners as the third most demanded handicraft in Malaysia. It is known that Kelantan and Terengganu have abundant Batik SMEs [10]. Local Batik SMEs faced competition from China which caused many small Batik manufacturers to close down their businesses [2]. The sustainability of Malaysian Batik SMEs is at stake, facing competition locally and abroad [10]. Moreover, the close association with suppliers and having a CSO enables the Batik producers to achieve ECS and ENS. This study empirically evaluated the Batik SME's ECS through INO, CSO, SPO, NOW, and ABC. Besides that, it intended to examine the effects of Batik SME's ECS on their ENS.

The next section covers the literature review of INO, CSO, SPO, NWO, absorptive capacity, ECS, and ENS concerning SMEs. Then, the next section describes the method of conducting this study based on the literature review and hypotheses development. Sections 4 and 5 present the analysis and results respectively. Section 6 presents the conclusions, future research opportunities, and study limitations.

# 2. Literature Review

# 2.1. Strategic Orientation and Economic Sustainability

The resource-based view (RBV) proposes that sustainable performance is derived from valuable, inimitable, and rare resources that allow firms to perform better than their competitors [11]. It is also essential that firms design a strategy that fully utilizes their most effective core resources and capabilities [12]. Villalonga [13] argued that RBV signifies intangible resources as a critical driver of performance, denoting that it is the business ability of resources that leads to a competitive advantage over time. In order to outperform others, firms need to incorporate possible competitive flaws as well as the costs involved in implementing the strategies [14]. Therefore, the association between strategic orientations as intangible and valuable resources that give rise to a firm's economic and environmental sustainability is explained under the premises of RBV.

#### 2.1.1. Innovation Orientation (INO)

Innovation became the hallmark of 21st-century firms. Innovation is a complex and resource-driven activity that needs trans-functional coordination among the firms' functional departments with a general sense of shared understanding and innovation as beliefs and values [15]. INO is generally associated with the firms' strategic intent for innovation with plans and commitment for faster innovations at the firm level [16]. INO is quite different from innovation as an output. INO is a complex and multidimensional construct based on the firms' strategic direction to have unique learning

paradigms and trans-functional operations in innovating with the available resources [17]. INO is a shared belief system that enables firms to coordinate and achieve their goals in a superior way [18]. It is believed that knowledge, learning, and coordinated efforts are critical to INO at the firm level [3].

#### 2.1.2. Customer Orientation (CSO)

CSO is a core marketing conceptualization [6]. CSO is having a sufficient understanding of the firm's target customer market to continue delivering superior values to the customers [5]. CSO is also the strategic stance by the firm in considering customer requirements as the key to business success [15]. CSO enables firms to achieve higher customer satisfaction through innovation and performance [3]. Besides that, CSO is the critical marketing capability of the firms in achieving competitive advantages in competitive market conditions [19]. CSO can promote superior performance in small and medium firms [8]. However, high CSO can harm the firm's performance as it requires more cost [8].

## 2.1.3. Supplier Orientation (SPO)

Having a strong and consistent relationship with suppliers can help firms to have a competitive advantage compared to the competitors [20]. Firm SPO is the relationship between the firm and the supplier in having a positive impact on firm performance [15]. A close and flexible relationship with the suppliers enables the firm to manage the supply chain well and accordingly plan based on the collective mutual understanding for product innovation and process change [20]. It is known that SPO has a positive impact on firm performance [6].

# 2.1.4. Network Orientation (NWO)

The managerial network is the key to working with firm stakeholders and has a significant relationship with the market intent of the firm [4]. Having a managerial network enables the firm to build ties with business and other institutional level partners in government [21]. Network building helps to focus better on the strategy execution of the firm to satisfy the stakeholder and the firm's profitability [22]. SMEs are a vital part of every economy, and SMEs' performance depends on the firm market orientation, and execution of market orientation associated with the NWO opted by the firm [7]. Effective NWO greatly influences firm performance in general. Network building is vital for progressive entrepreneurs and positively related to firm innovation and firm performance [6].

#### 2.1.5. Absorptive Capacity (ABC)

ABC is the firms' ability to assimilate and apply new externally acquired knowledge [17], which is important for the creation of competitive advantage. ABC enables the firms to innovate and achieve customer satisfaction and advantage over the competitors [16]. The firms' capacity to acquire, assimilate, and utilize new knowledge is highly associated with their investment in knowledge and learning capabilities [18]. Large firms invest in research and development (R&D) frequently but small firms find it difficult to invest in R&D [6]. Moreover, ABC is associated with the firms' innovation outcome and financial performance [5]. ABC is the inherent ability to tap the externally available knowledge to sync with the internally available knowledge in transforming the firms' practices to innovations that deliver economic performance [4].

#### 2.1.6. Economic Sustainability (ECS)

ECS objectives are important for SMEs [8]. However, having ECS is different from achieving economic objectives. ECS is associated with achieving the current economic objectives without compromising future economic objectives [15]. Financial objectives such as profitability, cost reduction, and management of financial issues need to focus on sustainability [17]. Long term orientation and making transparent financial dealing are vital aspects of ECS [16]. It is known that striking a balance for all the stakeholders to satisfy them is at the core of firms' ECS [8].

2.1.7. Environmental Sustainability (ENS)

Environmental sustainability refers to reducing firms' business practices' impact on the natural environment [1]. A firm's ecological concern translated into all its business practices. Monitoring and making the right adjustments are crucial features of substantial environmental efforts [20]. Protecting and preserving becomes the core of all business activities in which firms' business practices mitigate environmental issues [22]. ENS is about working with business partners to conserve the environment and reduce the impacts on the natural environment [4]. Moreover, the impacts of business practices on the environment are carefully studied to change business practices making them more environmentally friendly.

## 2.2. Hypotheses Development

## 2.2.1. Innovation Orientation and Economic Sustainability

INO needs a mechanism to connect to organizational resources in developing new products and services to meet the customers' existing and future needs with fewer resources and costs for creating an advantage [23]. Besides that, INO is a dynamic feature of an organization's economic success [18]. The orientation for innovation can charge up the resources to innovate and achieve significant economic success for the firms [3]. Changing product design and investing in R&D to translate ideas into products or services are necessary for the innovation process in promoting economic success [23]. Therefore, the following hypothesis is created:

Hypothesis 1 (H1). Innovation orientation has a positive and significant effect on economic sustainability.

#### 2.2.2. Customer Orientation and Economic Sustainability

A business driven by CSO is focused on customer demand and achieving customer satisfaction [6]. Increasing customer value from products and services enables firms to meet their economic objectives. Park et al. [3] reported that CSO influenced performance ( $\beta = 0.421$ , p = 0.000) and the firm's innovativeness as performance outcome. Neneh [8] revealed that CSO positively impacted the firm's economic performance ( $\beta = 0.50$ , p = 0.050). Consequently, the firm with a higher CSO will have more sustainable economic performance. Hence, this study hypothesized the following:

**Hypothesis 2 (H2).** *Customer orientation has a positive and significant effect on the economic sustainability of the firm.* 

#### 2.2.3. Supplier Orientation and Economic Sustainability

Suppliers are the firm's business partner, and the success of the firm depends on active collaboration with them [24]. Moreover, evaluating the association with each supplier partner regularly and uplifting them to a reasonable level helps the firm to obtain ECS by sharing strategic and valuable information with the partners [20]. Having a strategic and long-term relationship with business suppliers is the key to the firm's business success. Firm business performance is significantly associated with supply chain management by the firm (r = 0.569, p = 0.010) [20]. Therefore, the following is hypothesized for the Batik SMEs in Malaysia:

**Hypothesis 3 (H3).** *Supplier orientation of the firm has a positive and significant effect on the firm's economic sustainability.* 

# 2.2.4. Network Orientation and Economic Sustainability

Networking is another key activity to build an association with the buyer, supplier, competitors, and other industries [22]. Close ties with government sector officials can facilitate firms in having first-hand information about government policies that impact the firm business and operations [19]. Moreover, a firm's business is based on an honest and mutually beneficial relationship with its stakeholders like the buyers, suppliers, and competitors. Neneh [8] reported that a firm's association with business partners ( $\beta = 0.197$ , p = 0.050), social partners ( $\beta = 0.189$ , p = 0.050), and political partners ( $\beta = 0.278$ , p = 0.050) could positively influence the firm's economic performance. The good networking of a firm enhances the firm's economic performance in a sustainable way [25]. The discussion above has led to the following hypothesis:

**Hypothesis 4 (H4).** *Network orientation of the firm has a positive and significant effect on the firm's economic sustainability.* 

## 2.2.5. Absorptive Capacity and Economic Sustainability

ABC represents the firm's ability to create new products and services based on internal knowledge capacities to harness external knowledge [6]. ABC permits the firms to have a competitive advantage such as knowledge acquisition [7]. Previous research identified ABC acting as a conduit that plays an instrumental role in facilitating innovation within an organization [26–28]. Albort-Morant et al. [17] reported that ABC positively affected the green innovation performance of Spanish manufacturing SMEs ( $\beta = 0.330$ , p = 0.000). SMEs' business performance is greatly influenced by the firms' ABC [22]. The above discussion has led to the following hypothesis:

**Hypothesis 5 (H5).** *Absorptive capacity of the firm has a positive and significant effect on the firm's economic sustainability.* 

#### 2.2.6. Economic and Environmental Sustainability

ECS enables the firm to have the necessary sources to reduce the firm's impact on the environment [23]. The replacement of current environmentally unfriendly products requires resources and investment; ECS paves the way for achieving ENS [4]. SMEs have resource constraints and they are generating alternative resources that require a massive shift in the mindset of SME management and dedicated resources [21]. The firm's economic sustainable performance has a positive and significant association with the firm's ENS [25]. The above discussion has led to the following hypothesis:

Hypothesis 6 (H6). Economic sustainability has a positive effect on environmental sustainability.

# 2.3. Mediation Effect of Economic Sustainability

It is frequently reported that the firm's ECS is a function of the firm's INO, CSO, SPO, NOW, and ABC [8,15,18,20]. It is believed that the firm's ENS is significantly associated with the firm's ECS [1]. For the achievement of the firm's ENS, a firm's INO, CSO, SPO, NOW, and ABC are mediated by the firm's ECS as follows:

**Hypothesis 7 (H7).** *Economic sustainability mediates the relationship between innovation orientation, customer orientation, supplier orientation, network orientation, and absorptive capacity with the environmental sustainability of Batik SMEs.* 

All associations hypothesized are presented in Figure 1 below:



Figure 1. Research Framework.

# 3. Research Methodology

#### 3.1. Data Collection and Sample Selection

The subjects for this study were Batik producers from Kelantan and Terengganu. These two states are famous for the production of Batik on the east coast of Malaysia [10]. The researcher contacted the Malaysian Handicraft Development Corporation under the Ministry of Tourism, Art, and Culture Malaysia and obtained a list of 468 registered firms from Kelantan and Terengganu, Malaysia. First, the researcher contacted all the firms via telephone for permission and appointments. The data were collected using structured questionnaires in which the researcher conducted face to face interviews with the firms. The surveys were administered for three months from June 2019 to August 2019 which obtained 213 valid responses for the study.

## 3.2. Measurement and Scales

The questionnaire was designed using previously validated scales. This study adopted seven items from Yusof et al. [18] to estimate the INO for Batik SMEs. Six items from Neneh [8] and Masadeh et al. [15] were used to assess CSO. SPO was evaluated using seven items from Kumar et al. [20] and Acar et al. [24]. Besides that, NWO was assessed using three items from Panda [21], ABC was investigated using six items from Agostini et al. [6], and seven items were adopted to estimate SME's ECS and 11 items to estimate SME's ENS from Ferro et al. [1]. The questionnaire was translated into the Malay language for better understanding and the study constructs used a five-point Likert scale. The complete list of questions is presented in the Appendix A: Table A1.

## 3.3. Assessment of Common Method Variance (CMV)

Scientific methods of measurement in social science research are associated with common method bias caused due to their single source and single point of time data [29]. Harman's [30] one-factor test was the suggested remedy to assess the impact of CMV on the study constructs [29]. The one-factor Harman's test confirmed that CMV was not a critical issue as the highest factor accounted for 16.38% variance which was less than the suggested limit of 50%.

## 3.4. Multivariate Normality

There is no need for multivariate normality in the data to utilize the SEM-PLS as it is a non-parametric analysis tool [31]. However, data normality was verified upon the recommendation of Peng and Lai [32], an online tool of web power was utilized to confirm the data normality. The test

results confirmed that the data set is not normal, as the Mardia's multivariate coefficient *p*-values were less than 0.05 [33].

# 3.5. Data Analysis Method

Partial least square modeling (PLS-SEM) techniques are commonly used as an analytical tool to work with latent constructs and investigate the causal effect of endogenous variables with small data sets with an explorative nature and non-normality nature [31]. By following the recommendation by Chin [34], the PLS-SEM results were reported in two stages. The study reliabilities were reported with Cronbach's alpha ( $\alpha$ ) and composite reliability (CR) with the recommended values of  $\alpha$  and CR at 0.70 or above [34]. The average variance extracted (AVE) should be at 0.50 or above to establish convergent validity [31]. The variance inflation factor is determined to evaluate the presence of multicollinearity in the study constructs [34]. Moreover, the discriminant validity of study constructs was verified using cross-loading, Fornell-Larcker, and Heterotrait-Monotrait ratio (HTMT) in PLS-SEM in which the Fornell–Larcker values have to be at the cut-off values of 0.70 and HTMT at 0.900 [35]. This study used  $r^2$ , effect size ( $f^2$ ), and  $Q^2$  as common measures for the measurement model assessment.  $r^2$  is the measure of the model explanation power. Effect size  $(f^2)$  signifies the effect of each exogenous variable on the endogenous variable with the suggested guidelines by Cohen [36].  $Q^2$  value represents the effect size of the model with only an exogenous variable for the specific part of the model. Hair et al. [31] suggested 0.02, 0.15, and 0.35 as the small, medium, and substantial predictive relevance of the model respectively. The importance-performance map analysis (IPMA) describes the relatively high to low importance of the endogenous constructs in the study [34] in identifying the potential area of improvements from the point of view of the management and scholars. The IPMA centered on the total effect of the rescaled variable scores in the unstandardized arrangement. Rescaling developed each latent variable score between values of 0 and 100. The mean value of the latent variable score represents the performance of the latent variable, where 0 represents the least and 100 represents the most important regarding the performance of the endogenous construct [31].

# 4. Data Analysis

# 4.1. Descriptive Statistics

Table 1 shows the profile of the respondents. A significant portion of respondents was male which made up 58.7 %. A total of 52% of the respondents were in the age range of 31–40 years old, followed by 23.5% between 21–30 years old, and 21.1% between 41–50 years. A total of 65.7% of the respondents were married and 27.7% of them were single or not married. Around 45.5% of the respondents had a secondary level school education, 23% had an STPM/diploma level education, 10% of the respondents had a degree-level education, and 10.8% had no formal education. A total of 63.4% of the respondents belonged to Kelantan and the rest of them belonged to Terengganu.

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	n	%		n	%
Gender			Age		
Male	125	58.7	21–30 years of age	50	23.5
Female	88	41.3	31–40 years of age	110	52
Total	213	100	41–50 years of age	45	21.1
			51 and above of age	8	3.8
Education			Total	213	100
No education	23	10.8			
Primary	21	9.9			
Secondary	97	45.5	Marital Status		
STPM/Diploma	50	23.0	Single	59	27.7
Degree	22	10.3	Married	140	65.7
Total	213	100	Divorced	11	5.2
			Widowed	3	1.4
State			Total	213	100
Kelantan	135	63.4			
Terengganu	78	36.6			
Total	213	100			

Table 1. Profile of the Respondents.

# 4.2. Validity and Reliability

According to Hair et al. [31], the reliabilities for the study's constructs for alpha ( $\alpha$ ) and composite reliability (CR) of each construct should be more than 0.961, 0.859, and 0.972 respectively. The Cronbach's alpha values for each construct were well above the threshold of 0.70 and the minimum value of alpha was 0.861 [31]. Table 2 presents the results in which all the CR values are above the threshold of 0.70 and the minimum value of CR is close to 0.883 [31]. These results reveal that the constructs are reliable and perform well for the next analysis. The AVE for all items of each construct must be above 0.50 to achieve the convergent validity in approving the uni-dimensionality for each construct [31]. Table 2 shows the items that display that the constructs have acceptable convergent validity. The item loading and cross-loading were reported for validation of construct discriminant validity. The study construct had satisfactory discriminant validity (see Table 3). Furthermore, this study used the Foronell–Larcker criterion [37] and the hetero-trait and mono-trait HTMT ratio to determine the discriminant validity of study constructs [35]. Table 3 shows that the study has discriminant validity.

Table 2. Reliability Analysis
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Variables	Number of Items	Cronbach's Alpha	Composite Reliability	Average Variance Extracted	Variance Inflation Factor
Innovation orientation	7	0.885	0.912	0.896	1.193
Customer orientation	6	0.861	0.883	0.561	1.194
Supplier orientation	7	0.903	0.914	0.606	1.181
Network orientation	3	0.883	0.923	0.801	1.144
Absorptive capacity	6	0.893	0.918	0.653	1.119
Economic sustainability	7	0.879	0.906	0.580	1.000
Environmental sustainability	11	0.926	0.937	0.574	-

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	INO	CSO	SPO	NWO	ABC	ECS	ENS
INO-1	0.854	0.176	0.662	0.214	0.142	0.250	0.146
INO-2	0.794	0.156	0.679	0.147	0.098	0.243	0.072
INO-3	0.782	0.239	0.573	0.181	0.114	0.120	0.075
INO-4	0.519	0.053	0.593	0.308	0.211	0.183	0.177
INO-5	0.753	0.364	0.264	0.161	0.156	0.206	0.095
INO-6	0.819	0.281	0.406	0.183	0.135	0.209	0.115
INO-7	0.853	0.305	0 244	0 149	0.148	0.189	0.110
CSO-1	0.239	0.839	0.270	-0.007	0.022	0.130	-0.054
CSO-2	0.186	0.628	0.246	-0.006	-0.019	0.008	-0.169
CSO-3	0.207	0.699	0.287	0.061	0.035	0.109	-0.003
CSO-4	0.262	0.727	0.227	-0.012	0.031	0.102	-0.043
CSO=5	0.245	0.872	0.272	0.052	0.095	0.247	-0.016
CSO-6	0.132	0.699	0.206	-0.061	-0.021	0.062	-0.063
SPO-1	0.138	0.416	0.808	-0.032	0.122	0.058	-0.010
SPO-2	0.150	0.301	0.720	-0.089	0.122	0.064	0.029
SPO-3	0.125	0.238	0.824	-0.082	0.111	0.004	-0.047
SPO_4	0.120	0.250	0.624	-0.096	0.102	-0.022	-0.022
SPO_5	0.150	0.334	0.003	-0.063	0.117	0.022	-0.078
SPO 6	0.100	0.354	0.770	-0.005	0.007	0.000	-0.078
SPO 7	0.175	0.430	0.777	-0.001	0.090	0.007	-0.034
$3\Gamma O = 7$	0.173	0.449	0.800	-0.039	0.194	0.140	0.103
NWO-1 NWO 2	0.252	0.047	0.411	0.001	0.176	0.093	0.192
NWO-2	0.234	-0.011	0.511	0.933	0.273	0.255	-0.142
NWO-5	0.164	0.071	0.339	0.043	0.174	0.126	-0.508
ADC-1	0.211	0.039	0.097	0.194	0.876	0.249	-0.451
ADC-2	0.182	0.048	0.105	0.200	0.828	0.209	-0.420
ADC-3	0.120	0.014	0.181	0.214	0.828	0.190	-0.279
ABC-4	0.172	0.032	0.233	0.233	0.836	0.206	0.921
ABC-5	0.069	0.095	0.106	0.174	0.755	0.242	0.857
ABC-6	0.144	0.064	0.109	0.206	0.716	0.143	0.905
ECS-1	0.227	0.178	0.138	0.081	0.176	0.796	0.711
ECS-2	0.183	0.076	0.026	0.223	0.247	0.797	0.289
ECS-3	0.152	0.152	-0.001	0.137	0.094	0.771	0.331
ECS-4	0.194	0.230	0.066	0.097	0.223	0.745	0.205
ECS-5	0.281	0.109	0.120	0.118	0.257	0.728	0.294
ECS-6	0.192	0.132	0.128	0.204	0.260	0.758	0.251
ECS-7	0.191	0.195	0.174	0.145	0.073	0.730	0.356
ENS-1	0.166	0.001	-0.036	0.155	0.241	0.282	0.794
ENS-2	0.088	0.081	0.043	0.155	0.329	0.303	0.751
ENS-3	0.109	-0.043	-0.060	0.156	0.269	0.239	0.705
ENS-4	0.098	-0.083	-0.085	0.172	0.264	0.228	0.772
ENS-5	0.094	-0.069	-0.004	0.095	0.200	0.223	0.732
ENS-6	0.129	-0.030	-0.073	0.132	0.308	0.322	0.826
ENS-7	0.059	-0.042	0.102	0.169	0.233	0.300	0.741
ENS-8	0.071	-0.132	-0.020	0.137	0.316	0.337	0.766
ENS-9	0.192	-0.030	0.002	0.119	0.234	0.244	0.738
ENS-10	0.110	0.006	0.013	0.141	0.302	0.291	0.748
ENS-11	0.130	-0.007	0.020	0.173	0.248	0.351	0.750
Fronell-Larcker Criterion							
INO	0.775						
CSO	0.288	0.749					
SPO	0.183	0.328	0 778				
now	0.100	0.026	-0.071	0 895			
ARC	0.185	0.020	0.169	0.249	0.808		
FCS	0.100	0.199	0.105	0.249	0.000	0 761	
FNIC	0.209	_0.199	_0.125	0.192	3 57	0.701	0 757
LIND	0.140	-0.040	-0.000	0.174	5.57	0.002	0.757

 Table 3. Outer Loading and Cross Loadings.

	INO	CSO	SPO	NWO	ABC	ECS	ENS
Heterotrait-Monotrait Ratios							
INO	-						
CSO	0.323	-					
SPO	0.224	0.356	-				
now	0.276	0.075	0.090	-			
ABC	0.211	0.079	0.177	0.265	-		
ECS	0.292	0.178	0.130	0.187	0.276	-	
ENS	0.165	0.118	0.081	0.210	0.391	0.406	-

Table 3. Cont.

Notes: INO: Innovation orientation; CSO: Customer orientation; SPO: Supplier orientation; NWO: Network orientation; ABC: Absorptive capacity; ECS: Economic sustainability; ENS: Environmental Sustainability.

## 4.3. Path Analysis

The assessment of the structural model revealed that the model has good validity and reliabilities. The next step is to measure the measurement model to investigate the impact of INO, CSO, SPO, NOW, and ABC on ECS. The adjusted  $r^2$  value for the five input variables (i.e., INO, CSO, SPO, NWO, and absorptive capacity) on the ECS revealed a 12.3% change in the ECS. The predictive relevance (Q<sup>2</sup>) value for the part of the model is 0.072 which indicates a small predictive relevance [31]. Moreover, ECS on ENS (adjusted  $r^2$ ) explains 14.2% of the change in ENS. The predictive relevance (Q<sup>2</sup>) value for this part of the model is 0.075 which indicates a small predictive relevance [31].

Table 4 shows the standardized path values, *t*-values, and significance level. The path coefficient between INO and ECS ( $\beta = 0.166$ , p = 0.008) indicates a significant and positive effect of INO on ECS. The outcome statistically supports H1. The path value for CSO on ECS ( $\beta = 0.128$ , p = 0.029) shows the impact of CSO on ECS which is significant and positive. Thus, it supports H2. The SPO on the ECS ( $\beta = 0.101$ , p = 0.389) depicts the effect of SPO on ECS which is positive and insignificant that does not support H3. The path coefficient for NWO on ECS ( $\beta = 0.028$ , p = 0.089) has a positive but insignificant effect that does not support H4. The path coefficient for ABC on ECS ( $\beta = 0.193$ , p = 0.003) depicts the effect of ECS on ENS ( $\beta = 0.382$ , p = 0.000) depicts the effect of ECS on ENS as positive and statistically significant that supports H6. Table 4 shows the results of path coefficients.

H	ypothesis	Coefficient	t-Values	Sig.	$r^2$	$f^2$	Decision
H1	INO →ECS	0.166	1.295	0.008		0.027	Supported
H2	CSO →ECS	0.128	1.906	0.029		0.016	Supported
H3	SPO →ECS	0.101	0.282	0.389		0.001	Not Supported
H4	NWO →ECS	0.028	1.346	0.089		0.011	Not Supported
H5	ABC →ECS	0.193	2.738	0.003	0.123	0.039	Supported
H6	ECS →ENS	0.382	7.354	0.000	0.142	0.171	Supported

Table 4. Hypothesis Testing.

Notes: INO: Innovation orientation; CSO: Customer orientation; SPO: Supplier orientation; NWO: Network orientation; ABC: Absorptive capacity; ECS: Economic sustainability; ENS: Environmental Sustainability.

# 4.4. Mediating Effects

Table 5 presented the mediating effect of ECS on the relationship between INO and ENS. The result reveals that ECS mediates the relationship between INO and ENS ( $\beta = 0.067$ , CI min = 0.025, CI max = 0.117, p = 0.012). The relationship between CSO and ENS is mediated by ECS. The result reveals that ENS mediates the relationship between CSO and ENS ( $\beta = 0.057$ , CI min = 0.022, CI max = 0.100, p = 0.036). The relationship between SPO and ENS is mediated by ECS. The result shows that ECS does not mediate the relationship between SPO and ENS ( $\beta = 0.042$ , CI min = -0.073, CI max = 0.067, CI max =

p = 0.392). The relationship between NWO and ENS is mediated by ECS. The result reveals that ECS does not mediate the relationship between NWO and ENS ( $\beta = 0.042$ , CI min = -0.001, CI max = 0.096, p = 0.104). For the relationship between ABC and ENS, it is mediated by ECS. The result reveals that ECS mediates the relationship between ABC and ENS ( $\beta = 0.077$ , CI min = 0.028, CI max = 0.127, p = 0.008).

	β	CI-Min	CI-Max	t-Value	Sig.	Decision
INO →ECS →ENS	0.067	0.025	0.117	2.254	0.012	Mediation
CSO →ECS →ENS	0.057	0.022	0.100	1.809	0.036	Mediation
SPO→ECS →ENS	0.042	-0.073	0.067	0.273	0.392	No Mediation
NWO →ECS →ENS	0.042	-0.001	0.096	1.259	0.104	No Mediation
ABC →ECS →ENS	0.077	0.028	0.127	2.401	0.008	Mediation

lable 5. Meditating Effec	<b>Fable</b>	5.	Med	litating	Effec	t.
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Notes: INO: Innovation orientation; CSO: Customer orientation; SPO: Supplier orientation; NWO: Network orientation; ABC: Absorptive capacity; ECS: Economic sustainability; ENS: Environmental Sustainability.

# 4.5. Importance-Performance Factors

Table 6 shows the importance-performance matrix outcomes in which CSO is the most crucial factor in the performance of ENS (75.700), followed by SPO (73.519), and NOW (71.469). For effects, the most important factor is the ECS with the effect of (0.336), followed by ABC (0.070), and INO (0.059).

Target Construct	<b>Environment Sustainability</b>		
Variables	Total Effect	Performance	
Innovation orientation	0.059	66.563	
Customer orientation	0.057	75.700	
Supplier orientation	0.011	73.519	
Network orientation	0.031	71.469	
Absorptive capacity	0.070	58.805	
Economic sustainability	0.336	66.563	
Environmental sustainability	-	-	

#### Table 6. Importance-Performance Matrix.

#### 5. Discussion

The findings suggested that the Batik SMEs' INO, CSO, and ABC were important contributors to the achievement of SMEs' ECS. The ECS of Batik SMEs in Malaysia was significantly affected by INO ( $f^2 = 0.060$ ), CSO ( $f^2 = 0.060$ ), and ABC ( $f^2 = 0.060$ ). Therefore, this study accepted H1, H2, and H5 (see Table 4). However, the SPO ( $f^2 = 0.060$ ) and SMEs' NWO ( $f^2 = 0.060$ ) had an insignificant effect on the Batik SMEs' ECS which rejected H2 and H3. This result revealed that the Malaysian Batik SMEs did not concentrate on supplier relationship management and good networking with its stakeholders in general. The ECS of Batik SMEs is based on having good relations with its suppliers and stakeholders through networking practices. Besides that, the ECS of Batik SMEs focused on working with suppliers as partners and fulfilling the stakeholders' requirements by establishing mutually beneficial relationships.

Moreover, the realization of Batik SMEs' ENS is primarily based on SME's ECS ( $f^2 = 0.171$ ). Hence, it is very institutive that the achievement of ECS can lead to ENS. However, ECS is a must for the Batik SMEs' ENS. Besides that, the relationships between Batik SMEs' INO, CSO, ABC, and ENS are mediated by the Batik SMEs' ECS. The result reveals that the Batik SMEs' INO, CSO, and ABC are significant predictors for the Batik SMEs' ENS via ECS.

## 6. Conclusions

Recent environmental degradation has led to the urgency of adopting climate-friendly practices and resources to have ECS and ENS [22]. The Batik SMEs and SMEs are more concerned with the environment and they are changing their current business practices to be more sustainable in terms of economic and environmental manner [18]. The existing literature developed a conceptual framework to test and verify the association of the Batik SMEs' orientation for innovation, customers, suppliers, and networks with Batik SMEs' ABC on ECS. The findings also add new knowledge to the growing literature in addressing the ecology issues while remaining economical and environmentally sustainable. This study intended to extend the literature on SMEs' sustainability and economic and environmental performance within the existing framework of INO, CSO, SPO, NWO, and firms' absorptive capacity. The findings highlighted that Batik SMEs' INO, CSO, and ABC significantly influenced ECS. Moreover, Batik SMEs ECS could positively and significantly impact ENS. Furthermore, Batik SMEs' ECS significantly performed the meditational role for the relationship between INO, CSO, and ABC on ENS.

Additionally, the three most important factors for the performance of Batik SMEs are ECS, CSO, SPO, and NWO. The results of this study were similar to the studies by Albort-Morant et al. [17], Neneh [8], and Yusof et al. [18]. Also, in terms of impact, the three most important factors are ECS, ABC, and INO. Batik SMEs' ECS achievement is possible by paying attention to customers' needs, having good relationships with suppliers, and good networking with market players and governmental institutions [16]. However, it is impossible to impact Batik SMEs' ENS without ECS, ABC, and innovation.

Moreover, this study has several implications for Batik SME owners, policymakers, financial service providers, and academics. SME's orientation for innovation, customer, and ABC needs more attention to improve sustainable economic performance. Besides that, Batik SME owners need to work toward innovation to make a mark with the provision of required resources to innovate and have sustainable economic performance. Moreover, CSO is essential for small and large businesses. The close attachment with the customers enables the Batik SMEs to perform well. Batik SMEs need to deliver according to customers' needs and preferences for product or service offerings. Moreover, ABC enables the CSO and innovation-oriented mindset of the Batik SMEs for the achievement of economic performance sustainability. While working on innovation, Batik SME owners need to incorporate the existing coordination within the firm which may enable the achievement of objectives. Although CSO is fundamental in positioning the firm in the market, it is important for Batik SMEs can integrate valuable external knowledge and gain an advantage over competitors.

Policymakers and financial institutions need to develop Batik SME owner's capacity and the availability of financial resources to engage in sustainable economic and environmental performance for Malaysian Batik SMEs. Moreover, Batik SMEs need to understand and cope with the changing market conditions and ecological shifts that impact them. Ecological changes need to be tackled using proper knowledge through training and the understanding of environmental issues. Moreover, process or product changes need financial resources such as credit availability as capability enhancing factors in Batik manufacturing.

This study utilized cross-sectional data to test associations. Moreover, CSO has a curvilinear U shape impact on firms' performance, as increased CSO can reduce benefits as the cost increases over the period of time [6]. Future studies can use longitudinal data and examine the effect in multiple periods of time to explore the relationships in great detail. The study is conducted in a developing country and the results may not be generalized for developed countries.

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# Appendix A

Code	Question	Mean (Median)	Inter-Quartile Range
INO-1	Our company believes that being innovative is about being able to make amendments to the existing products of other firms.	3.84 (4.00)	2
INO-2	Our company competes to be the first to introduce new designs/ products ahead of other firms.	3.61 (4.00)	1
INO-3	Our company design based on potential demand.	3.74 (4.00)	2
INO-4	Our company invests heavily in R&D for new ideas and technology.	3.00 (3.00)	2
INO-5	Our company usually introduces a familiar/ well-known design/ product to the client.	3.86	2
INO-6	Our company only introduce a design when it shoes potential demand	3.78	2
INO-7	Our company makes modifications based on the existing proven successful products	3.70	2
CSO-1	Our company's business objectives are driven by customer satisfaction.	4.08	1
CSO-2	Our company make sure that competitive advantage is based on understanding customers' needs	4.06 (4.00)	1
CSO-3	Our company closely monitors and assesses the company's level of commitment to serving customers' needs.	4.07 (4.00)	1
CSO-4	Our company ensures that business strategies are driven by the goal of increasing customer value.	4.20 (4.00)	1
CSO-5	Our company constantly monitor our level of commitment and orientation to serve customer needs.	4.08 (4.00)	1
CSO-6	Our company's business objectives are primarily driven by customer satisfaction	4.11 (4.00)	1
SPO-1	Our company evaluated each collaboration with suppliers regularly.	4.02 (4.00)	1
SPO-2	Our company has jointly formed criteria for evaluating collaboration with suppliers.	3.88 (4.00)	2
SPO-3	Our company thinks suppliers are involved in developing business process.	3.91 (4.00)	2
SPO-4	Our company has clear objectives for the supplier relationship.	4.12 (4.00)	1
SPO-5	Our company and suppliers are actively looking for new collaborative areas.	4.00 (4.00)	2
SPO-6	Our company repeatedly tells employees that sharing valuable strategic or tactical information with our supplier.	4.00 (4.00)	2
SPO-7	Our company repeatedly tells employees that building, maintaining, and enhancing long-term relationships with our supplier.	4.06 (4.00)	1
NWO-1	Our company actively build personal ties, networks, and connections with top managers at political leaders at various level of government.	3.79 (4.00)	2
NWO-2	Our company actively builds personal ties, networks, and connections with top managers at officials in industry bureaus.	3.85 (4.00)	2

# Table A1. Research Instrument.

Code	Question	Mean (Median)	Inter-Quartile Range
	Our company actively builds personal ties, networks,	2.02	
NWO-3	and connections with top managers at officials in	3.92	1
	regulatory and supporting organizations.	(4.00)	
ABC-1	Our company has the capability to search for	3.55	1
	external information.	(4.00)	1
ABC-2	Our company has the capability to search for	3.47	1
	external knowledge.	(4.00)	1
ABC-3	Our company can identify the usefulness of	3.35	1
	external information.	(4.00)	1
ABC-4	Our company can identify the usefulness of	3.43	1
	external knowledge.	(4.00)	1
ABC-5	Our company can effectively utilize extant or newly	3.42	1
	acquired knowledge.	(4.00)	1
ABC-6	Our company can flexibly utilize extant or newly	3.51	1
	acquired knowledge.	(4.00)	1
ECS-1	Our company's sustainable business practices are about	5.14	2
	making money for all stakeholders involved.	(5.00)	-
ECS-2	Our company's sustainable business practices improve	4.84	2
	cost efficiency.	(5.00)	_
ECS-3	Our company's sustainable business practices contribute	5.06	
	positively to other aspects of the company's	(5.00)	2
	business operations.	(0.00)	
ECS-4	Our company's sustainable business practices require	5.18	
	that all direct business partners are engaged in	(5.00)	2
	such practices.	(0.00)	
ECS-5	Our company's sustainable business practices are	4.93	2
	derived from corporate policies.	(5.00)	-
ECS-6	Our company's sustainable business practices are based	4.99	2
	on long term business perspectives.	(5.00)	_
ECS-7	Our company's sustainable business practices are	4.90	2
	transparent to all those interested.	(5.00)	
ENS-1	Our company's sustainable business practices reduce its	4.62	1
	business partners' impact on the natural environment.	(4.00)	
	Our company's sustainable business practices take the	4.48	
ENS-2	impact of business partners on the natural environment	(4.00)	1
	into account.	(1100)	
ENS-3	Our company's sustainable business practices are	4.55	1
	implemented in response to the on-going climate change.	(4.00)	-
ENIS_4	Our company's sustainable business practices consider	4.67	1
2110 1	climate change issues when they are implemented.	(4.00)	-
	Our company's sustainable business practices consider	4 49	
ENS-5	the effects of corporate business operations on	(4.00)	1
	global warming.	(100)	
ENS-6	Our company's sustainable business practices go beyond	4.48	1
	the company itself.	(4.00)	1
ENS-7	Our company's sustainable business practices show each	4.46	1
	product's impact on the natural environment.	(4.00)	1
ENS-8	Our company's sustainable business practices have led	4 61	
	to company products becoming more	(4.00)	1
	ecologically-friendly.	(1.00)	
	Our company's sustainable business practices address	4.60	
ENS-9	activities related to the environmental impact	±.00 (4.00)	1
	of products.	(4.00)	
	Our company's sustainable business practices are	4 50	
ENS-10	considered suitable to deal with the	4.37	1
	natural environment.	(4.00)	
	Our company's sustainable business practices are	4.63	4
ENS-11	monitored through continuous improvement.	(4.00)	1

# Table A1. Cont.

Notes: INO: Innovation orientation; CSO: Customer orientation; SPO: Supplier orientation; NWO: Network orientation; ABC: Absorptive capacity; ECS: Economic sustainability; ENS: Environmental Sustainability.

# References

- Ferro, C.; Padin, C.; Høgevold, N.; Svensson, G.; Varela, J.C.S. Validating and expanding a framework of a triple bottom line dominant logic for business sustainability through time and across contexts. *J. Bus. Ind. Mark.* 2019, 34, 95–116. [CrossRef]
- Yaacob, M.R.; Ismail, M.; Zakaria, M.N.; Zainol, F.A.; Zain, N.F.M. Environmental Awareness of Batik Entrepreneurs in Kelantan, Malaysia—An Early Insight. *Int. J. Acad. Res. Bus. Soc. Sci.* 2015, *5*, 338–347. [CrossRef]
- 3. Park, C.; Oh, C.H.; Kasim, A. Market challenges, learning and customer orientation, and innovativeness in IJVs. *Int. Mark. Rev.* 2017, 34, 945–967. [CrossRef]
- 4. Svensson, G.; Wagner, B. Implementing and managing economic, social and environmental efforts of business sustainability: Propositions for measurement and structural models. *Manag. Environ. Qual. Int. J.* 2015, *26*, 195–213. [CrossRef]
- 5. Wang, Q.; Zhao, X.; Voss, C. Customer orientation and innovation: A comparative study of manufacturing and service firms. *Int. J. Prod. Econ.* **2016**, 171, 221–230. [CrossRef]
- Agostini, L.; Nosella, A.; Soranzo, B.; Al-Mashari, M.; Pellegrini, L. Measuring the impact of relational capital on customer performance in the SME B2B sector: The moderating role of absorptive capacity. *Bus. Process. Manag. J.* 2017, 23, 1144–1166. [CrossRef]
- 7. Al Mamun, A.; Nawi, N.B.C.; Permarupan, P.Y.; Muniady, R. Sources of competitive advantage for Malaysian micro-enterprises. *J. Entrep. Emerg. Econ.* **2018**, *10*, 191–216. [CrossRef]
- 8. Neneh, B.N. Customer Orientation and Performance of Women-Owned Businesses: A Configurational Approach. *J. Small Bus. Manag.* 2019, 57, 218–243. [CrossRef]
- 9. SME Corp. SME Statistics—2019. Available online: http://www.smecorp.gov.my/index.php/en/policies/2015-12-21-09-09-49/sme-statistics (accessed on 3 August 2019).
- 10. Nordin, R.; Bakar, S.S.A. Malaysian Batik Industry: Protecting local Batik design by copyright and industrial design laws. *Int. J. Bus. Soc.* **2012**, *13*, 117–132.
- 11. Nabiswa, F.; Mukwa, J.S. Impact of Credit Financing on Human Resource Development among Micro and Small Enterprises: A Case Study of Kimilili Sub County, Kenya. *Asian J. Manag. Sci. Econ.* **2017**, *4*, 43–53.
- 12. Grant, R.M. The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *Calif. Manag. Rev.* **1991**, *33*, 114–135. [CrossRef]
- 13. Villalonga, B. Intangible resources, Tobin'sq, and sustainability of performance differences. *J. Econ. Behav. Organ.* **2004**, *54*, 205–230. [CrossRef]
- 14. Barney, J.B.; Clark, D.N. *Resource-Based Theory: Creating and Sustaining Competitive Advantage*; Oxford University Press on Demand: Oxford, UK, 2007.
- 15. Masa'Deh, R.; Al-Henzab, J.; Tarhini, A.; Obeidat, B.Y. The associations among market orientation, technology orientation, entrepreneurial orientation and organizational performance. *Benchmarking Int. J.* **2018**, *25*, 3117–3142. [CrossRef]
- 16. Flatten, T.C.; Greve, G.I.; Brettel, M. Absorptive Capacity and Firm Performance in SMEs: The Mediating Influence of Strategic Alliances. *Eur. Manag. Rev.* **2011**, *8*, 137–152. [CrossRef]
- 17. Albort-Morant, G.; Leal-Rodríguez, A.L.; De Marchi, V. Absorptive capacity and relationship learning mechanisms as complementary drivers of green innovation performance. *J. Knowl. Manag.* **2018**, *22*, 432–452. [CrossRef]
- 18. Yusof, N.; Lai, K.S.; Kamal, E.M. Characteristics of innovation orientations in construction companies. *J. Eng. Des. Technol.* **2017**, *15*, 436–455. [CrossRef]
- 19. Zhang, M.; Huo, B. The impact of dependence and trust on supply chain integration. *Int. J. Phys. Distrib. Logist. Manag.* **2013**, *43*, 544–563. [CrossRef]
- 20. Kumar, V.; Bak, O.; Guo, R.; Shaw, S.L.; Colicchia, C.; Garza-Reyes, J.A.; Kumari, A. An empirical analysis of supply and manufacturing risk and business performance: A Chinese manufacturing supply chain perspective. *Supply Chain Manag. Int. J.* **2018**, *23*, 461–479. [CrossRef]
- 21. Panda, D.K. Managerial networks and strategic orientation in SMEs. J. Strat. Manag. 2014, 7, 376–397. [CrossRef]
- 22. Wagner, B.; Svensson, G. A framework to navigate sustainability in business networks. *Eur. Bus. Rev.* 2014, 26, 340–367. [CrossRef]

- 23. Dobni, C.B.; Klassen, M. Advancing an Innovation Orientation in Organizations: Insights from North American Business Leaders. *J. Innov. Manag.* **2015**, *3*, 104–121. [CrossRef]
- 24. Acar, M.F.; Zaim, S.; Isik, M.; Calisir, F. Relationships among ERP, supply chain orientation and operational performance. *Benchmarking Int. J.* **2017**, *24*, 1291–1308. [CrossRef]
- 25. Cassells, S.; Lewis, K. Managing to be environmentally responsible: Incentives and disincentives reported by small businesses. *Small Enterp. Res.* **2019**, *26*, 1–17. [CrossRef]
- 26. Tsai, W. Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Acad. Manag. J.* **2001**, *44*, 996–1004.
- 27. Andreeva, T.; Kianto, A. Knowledge processes, knowledge-intensity and innovation: A moderated mediation analysis. *J. Knowl. Manag.* 2011, *15*, 1016–1034. [CrossRef]
- 28. Kostopoulos, K.; Papalexandris, A.; Papachroni, M.; Ioannou, G. Absorptive capacity, innovation, and financial performance. *J. Bus. Res.* **2011**, *64*, 1335–1343. [CrossRef]
- 29. Podsakoff, P.M.; MacKenzie, S.B.; Podsakoff, N.P. Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annu. Rev. Psychol.* **2012**, *63*, 539–569. [CrossRef]
- 30. Harman, H.H. Modern Factor Analysis, 3rd ed.; The University of Chicago Press: Chicago, IL, USA, 1976.
- 31. Hair, J.F.; Ringle, C.M.; Sarstedt, M. Editorial-partial least squares structural equation modeling: Rigorous applications, better results, and higher acceptance. *Long Range Plan.* **2014**, *46*, 1–12. [CrossRef]
- 32. Peng, D.X.; Lai, F. Using partial least squares in operations management research: A practical guideline and summary of past research. *J. Oper. Manag.* **2012**, *30*, 467–480. [CrossRef]
- 33. Cain, M.K.; Zhang, Z.; Yuan, K.-H. Univariate and multivariate skewness and kurtosis for measuring nonnormality: Prevalence, influence and estimation. *Behav. Res. Methods* **2016**, *49*, 1716–1735. [CrossRef]
- 34. Chin, W.W. How to write up and report PLS analyses. In *Handbook of Partial Least Squares;* Vinzi, V.E., Chin, W.W., Henseler, J., Wang, H., Eds.; Springer: Berlin/Heidelberg, Germany, 2010.
- 35. Henseler, J.; Ringle, C.M.; Sarstedt, M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J. Acad. Mark. Sci.* **2014**, *43*, 115–135. [CrossRef]
- 36. Cohen, J. Statistical Power Analysis for the Behavioral Sciences, 2nd ed.; Lawrence Erlbaum Associates: Hillsdale, NJ, USA, 1988.
- 37. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]

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