

Key factors influencing the export performance of SMEs in Rwanda: evidence from the non-traditional export sector

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Abstract

Purpose – This study aims to develop and empirically test a model that describes the factors influencing a firm's export performance; a model that can be adopted by future export researchers, policymakers and practitioners. Specifically, this study aimed to identify the main factors affecting the export performance of manufacturing small- to medium-sized enterprises (SMEs) in Rwanda and determine the extent of influence of each identified factor on export performance.

Design/methodology/approach – The research design combines both exploratory research and causal research designs to test the proposed model. Interview guide and survey questionnaires were used to collect the raw data. The collected quantitative data were analysed using the structural equation modelling technique with the Analysis of Moment Structures software.

Findings – The findings revealed that all the factors identified, namely, organisational, entrepreneurial and industrial, and market factors had a significant positive impact on the export performance of SMEs. Moreover, entrepreneurial factors were proven to be the most influencing factors in export performance followed by market-level factors. In this context, the proposed resource-market-based model of export performance was tested and validated in a less developed country, Rwanda, for exporting SMEs.

Originality/value – The proposed model of export performance extends the existing literature in two ways: firstly, it integrates internal and external factors to explain the export performance of an SME and secondly, it tests the relative importance of these factors in driving and maintaining international performance.

Keywords Export performance, Key factors, SEM, SMEs

Paper type Research paper

1. Introduction

While business managers view exporting as a way to increase their competitive advantage and ensure the survival of the business in a highly globalised, policymakers view exporting as a means of accumulating foreign exchange reserves, increasing employment opportunities and improving national performance and productivity (Lages and Montgomery, 2004). As this statement was not yet enough at all, all national governments around the world have unanimously recognised export as not only an absolute priority but also, and above all, a path for economic development.



However, despite the widely recognised benefits of exporting for countries' economic growth, African small- to medium-sized enterprises (SMEs) are still reluctant to enter the international market for several reasons including resource limitation and an uncondusive business environment (Garone *et al.*, 2017). These limitations hinder SMEs from penetrating the export market and sustaining their export activities in such a way that, of the few that have embarked on exporting, many do not do so comfortably. Given the importance of SME activities in international trade, several studies have been conducted to cover different modes of entry. Among the most notable are those by Huett *et al.* (2014), on markets and location selection strategy; and timing of market entry and resource constraints.

Studies on efforts to improve the export performance of SMEs have also become prominent in the field of export-related research (Jin and Cho, 2018; Krammer *et al.*, 2018). However, most of these studies have focused on firms in developed and emerging countries, with the notable exception of Mpunga (2016) in Tanzania, Osano (2019) in Kenya and Haddoud *et al.* (2018) in Algeria. However, these studies have used different indicators and the consistency of the results remains to be established and researched further (Stouraitis *et al.*, 2017).

The scarcity of empirical studies on African SMEs has led to the death of information on the export performance of SMEs. As a result, the existing literature on exports tends to generalise the results generated by research in developed countries, thus questioning the relevance of these results to African countries (Bosco *et al.*, 2012). Because there may be differences among the factors influencing exports in developed and developing countries, and between large firms and SMEs, these differences are likely to affect the resource requirements for exports.

As Rwanda is a developing nation with a low export performance (only 15% of total merchandise exports in 2015 compared to Uganda and Tanzania, for example, with about 25%), the study of export performance factors is of particular interest. Many Rwandan firms, including SMEs, are now able to penetrate international markets, but with only 14% of manufacturing firms export some of their products [National Institute of Statistics of Rwanda (NISR), 2018], compared to 26% of those in Tanzania, 29% in Uganda and 44% in Kenya. Despite this low contribution to gross domestic product (GDP) formation, the country has made efforts to export offerings containing the following five categories:

- (1) Traditional products such as tourism, minerals, tea and coffee
- (2) Other formal or non-traditional exports (NTEs)
- (3) Informal border trade
- (4) Re-export
- (5) Services (English *et al.*, 2016)

This study focussed on “non-traditional exports”, including agro-processed products, manufactured goods, hides and skins, livestock and animals, horticultural products and others.

Meanwhile, Rwanda's low level of exports has raised many concerns in government and academic circles about the sustainability of the successes achieved so far. As the country tries to find ways to benefit from globalisation and regional economic integration, the need for empirical evidence of the factors that influence export performance is more relevant than ever. Moreover, the macroeconomic nature of many of the existing studies in Rwanda has

made empirical studies at the micro level more than necessary. As a result, policy formulation has been hampered by a lack of relevant empirical studies at the firm level.

With this in mind and drawing on the resource-based and market-based views, this study aimed to develop and empirically test a model that describes the factors influencing a firm's export performance; a model that can be adopted by future export researchers, policymakers and practitioners. Specifically, this study aimed to identify the primary export performance factors of manufacturing SMEs in Rwanda and determine the extent of the influence of each identified factor on export performance.

This paper continues with the theoretical framework in Section 2, and a description of the research methods and data collection in Section 3. Finally, the results and a discussion are presented in Section 4, and Section 5 concludes with implications for practice and theory.

2. Theoretical framework and hypothesis development

This study proposes a model that incorporates both internal and external factors to explain a firm's superior performance in foreign markets. The internal external divide corresponds to the two theoretical approaches that underpin this empirical research: the resource-based view (RBV) of the firm and the market-based view (MBV).

2.1 Export performance

Business performance is a multidimensional concept that aims to ensure the growth and profitability of companies. As such, the literature on export performance is replete with indicators on this subject. The wide range of indicators used reflects the difficulties in accessing export data and the ongoing search for consistent and comprehensive measures, which makes it very difficult to compare and validate the results of different studies (Beleska-Spasova, 2014). However, according to Cadogan *et al.* (2009), export performance refers to satisfaction with the level of export sales and profits, market share and customer satisfaction relative to competitors.

2.2 Export performance factors

The basic argument of strategic management scholars (Tece, 2017) is that firms' export performance heterogeneity is based on both internal factors, which are firm-specific and external factors found in the company's environment conditions. The relevance of internal factors is explored in the framework of the RBV. According to the RBV, differences in export performance arise from competitive advantages (or disadvantages) determined by the set of resources, both tangible and intangible, of each firm. Built on internal attributes also known as firm-specific factors (Safari and Salman Saleh, 2020), RBV recognises the importance of entrepreneurial capabilities, such as managerial knowledge, experience and attitude and organisational factors such as technology, quality products and market information in predicting firm export performance (Tece, 2017). The role of these factors in marketing literature has been the subject of numerous studies which have led to conclusions that the lack of internal factors is among the main reasons hindering firms' performance in foreign markets (Brouthers *et al.*, 2015).

While supporting Singh's (2009) view that RBV is limited in explaining the export behaviour of firms in developing countries where the business conditions in which SMEs operate are precarious, Mais and Amal (2011) focus on external factors such as market dynamics and the institutional environment that result from the MBV. The MBV emphasises that a firm's performance is determined by the characteristics of its external environment, which is represented by the characteristics of its industry and the export market environment.

2.3 Organisational factors and export performance

Organisational factors include firm capabilities, such as new technologies, quality products and export market information, which have been recognised as catalysts for improving firms' export performance. Some empirical studies have argued that compliance with international product quality standards hinders African SMEs' access to export markets (ITC 2018 cited in [Lwesya, 2021](#)). Alongside these factors, other studies have emphasised that, in the uncertainty of the international market, possession of certain export-relevant knowledge, such as market information and customer information, is indeed vital in building the skills of small exporting firms to compete in international markets ([Fernando et al., 2017](#)). In the same vein, several studies have shown that export success is also determined by the alignment between export strategies and export performance in a marketing environment ([Haddoud et al., 2018](#)). In the same vein, a study by [García-Cabrera et al. \(2017\)](#) argued that SMEs' international operations are expected to increase gradually as they gain knowledge about the international market. Therefore, based on the empirical studies, the following hypothesis is proposed:

H1. Organisational factors have an impact on the export performance of SMEs.

2.4 Entrepreneurial factors and export performance

The entrepreneurial factors of SMEs consider the manager's knowledge and attitude towards exporting ([Miesenbock, 1988](#)), which are intangible assets according to RBV. The RBV approach relies on key determinants, notably managerial ones. Some authors have hypothesised that a firm's export performance is directly related to the general knowledge of its owner so that the feasibility and applicability of different strategies are based on mobilisable intangible amenities ([Manzanares, 2019](#)). This view is also supported by [Safari and Salman Saleh \(2020\)](#), who found that a firm's export performance depends mainly on its manager. For instance, an entrepreneur's lack of experience and limited knowledge of foreign markets are often cited as major obstacles to successful exporting to these markets. Managers with more years of experience in foreign markets and better knowledge of foreign markets will be more insightful in selecting appropriate export markets ([Krammer et al., 2018](#)). In the same vein, a study by [Staden \(2022\)](#) argued that managers' international experience is a key success factor for a firm to compete in a foreign market. What follows from these empirical studies is that when managers understand the value of exporting, the firm is more likely to interact with the international market, hence the second hypothesis of this study:

H2. Entrepreneurial factors have an impact on the export performance of SMEs.

On the contrary, these resource limitations may be more constraining to international performance when firms are exposed to an adverse business environment. The relevance of external factors is supported by the MBV which argues that a firm must adapt to the pressures of the external environment to survive and prosper. Superior export performance is therefore the result of a firm's successful strategic response to external factors.

External factors are defined as being specific to the environment and are therefore out of managements' control. They are generally classified into two categories: industry-specific factors and market-specific factors. The impact of these factors has been highlighted in previous studies, some of which are summarised in the following sections.

2.5 Industrial factors and export performance

Industry-specific factors are related to the technological environment, such as industry technological turbulence and competitive intensity ([Beleska-Spasova, 2014](#)) and government

support (Osano, 2019). Several studies have established the impact of these factors on export performance. For instance, Reis and Fortel (2014) found that the industrial characteristics of Portuguese firms are important determinants of export performance in terms of intensity. According to Jamshidi and Moazemi (2016), technological turbulence involves the level of innovation which has been reported to be a source of export performance, while competitive intensity is the extent of rivalry between different players in an industry. However, Osano (2019) in Kenya found no significant functional relationship between supportive environment of firms and their global expansion. Based on this empirical evidence, the following hypothesis is proposed:

H3. Industrial factors have a positive influence on the export performance of SMEs.

2.6 Market factors and export performance

Market-specific factors refer to the characteristics of national and international markets, i.e. the ability of a firm to use its inter-organisational relationships to access the foreign market. Studies have postulated that firms that are part of industrial networks benefit from prior knowledge exchange, which increases their export performance (Felzensztein *et al.*, 2015) and increases their visibility and accessibility to international markets. Paula *et al.* (2017) found that networking is generally seen as a crucial source of market information and knowledge, often acquired over long periods in the absence of a relationship with the host country. Sanyal *et al.* (2020) come to the same conclusion in Oman, namely, that the lack of networking opportunities and access to country-specific market information hinders the performance of exporting firms. In contrast to developed countries, SMEs do not have a relevant foothold in international business social networks and rely on the owner's social contacts, which may prove to be an obstacle to their competitiveness. Accordingly, the following hypothesis is proposed:

H4. Market factors have an impact on the export performance of SMEs.

2.7 Conceptual model

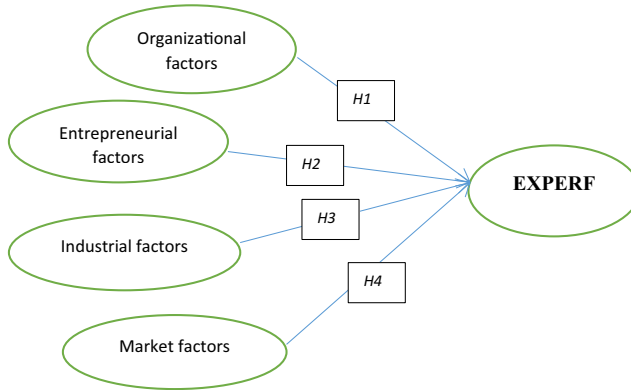
Owing to the theoretical framework and empirical evidence reviewed above, this study models that, holding all other factors constant, SME export performance is the result of organisational, entrepreneurial, industry and market factors. The resulting model is the resource-market-based model of export performance (Figure 1), which is validated by empirical evidence from exporting SMEs in Rwanda.

3. Methodology

3.1 Sample and data collection methods

The unit of analysis is the SME, with the marketing manager and the financial manager as key informants. A quantitative dominant mixed-method design was adopted for data collection and analysis, with qualitative data collected before the quantitative data. This quantitative dominant mixed approach allowed for a better understanding of the factors explaining export performance in Rwanda by using complementary data sources.

For the qualitative components of this study, the main data source was eight individual interviews with government participants and representatives of exporting SMEs. This study used a convenient sampling technique to obtain maximum variation in a representative sample to generate export performance factors in the Rwanda context. In line with best practices and to facilitate data collection by participants, a flexible topic guide was



Source: Researcher's design for this study, 2020

Figure 1. Model of export performance based on resource and market factors

developed using open-ended questions to encourage participants to tell their own stories in their own words. Participants listed and explained all the export performance factors based on their recent experiences. The minimum criteria included direct involvement in the export marketing decision and the level of general knowledge about the research topic. From a list of 23 identified factors, 16 were selected using the consensual validation approach (Sam, 2013) by critically eliminating repetitive/similar and irrelevant responses provided during the interview session.

All identified factors were classified and grouped according to their relative constructs, as per the literature review: organisational factors (OF), entrepreneurial factors (EF) (internal or controllable factors), industry factors (IF) and market factors (MF) (external or uncontrollable factors) to form the survey questionnaire.

Building on the qualitative components, this quantitative component was guided by four research objectives. As there is no official list of units of analysis, a sample of 62 exporting SMEs was purposively selected as regular exporters. The survey questionnaire was administered through a personal interview using a "drop and collect" approach to 124 respondents of which 105 questionnaires were returned (85%). Most respondents (79%) were male, 77% were young and 65% had a college degree in business administration.

The 21-item questionnaire was pre-tested with five regular exporters. The results were subjected to a reliability analysis (pilot study) using Cronbach's alpha, which was found to be above the threshold value (between 73.8% and 90.8% for the five constructs).

3.2 Variables and their measurement

Export performance (EXPERF) is the individual's understanding of the extent to which a firm's specific financial and non-financial objectives reach export markets, based on criteria and benchmarks that are important to the manager (Sadeghi *et al.*, 2021). Perceived (self-reported) measures were used because objective measures were not publicly available. Thus, respondents were asked to indicate their level of satisfaction with the five elements of measurement (export sales growth, export profit growth, export market share, competitiveness of the product in the international market and number of export destination countries) on a five-point scale ranging from 1 = extremely dissatisfied to 5 = extremely satisfied. Based on 16 independent variables, respondents were asked to rate their level of

agreement with the measures on a five-point scale from 1 = strongly disagree to 5 = strongly agree.

3.3 Data preparation

Before using structural equation model (SEM), the collected data were checked for missing values, outliers and multi-collinearity issues. There were no missing data, nor were there any outliers because the Mahalanobis distance (D^2) was less than the Chi-square values of the applied items (Harms *et al.*, 2015). Multi-collinearity was not an issue in the data set, as the variance inflator factor (VIF) scores in this model ranged from 1.37 to $4.79 < 10$ (Pallant, 2016).

3.4 Data analysis

The data were processed using exploratory factor analysis and a covariance-based structural equation model (CB-SEM) using the IBM Statistical Package for the Social Sciences (SPSS) and IBM Analysis of Moment Structures (AMOS) version 25. Because the aim of this study was to test a model, that included reflective variables highly correlated with each other in a normally distributed data set, the choice of CB-SEM was well suited (Hair *et al.*, 2017b).

The validity of the measurement model was assessed by establishing acceptance levels of goodness-of-fit and finding specific evidence of construct validity. The estimated values of the chi-square (χ^2), CMIN/*df*, goodness-of-fit index (GFI), mean square error of approximation (RMSEA), Tucker Lewis index (TLI) and comparative goodness index (CFI) (Byrne, 2016; Hair *et al.*, 2017b) were compared to the recommended threshold. Construct validity was evaluated using convergent validity, i.e. composite reliability (CR) and the average variance extracted (AVE). Discriminant validity was assessed by comparing the average variance extracted for each construct with the corresponding squared inter-construct correlations (SIC); an AVE larger than the SIC indicated discriminant validity (Hair *et al.*, 2017b).

Finally, the structural model, i.e. hypothesis testing, was performed using the following three criteria:

- (1) a *p*-value of 5%;
- (2) a critical ratio (*t*-value) of at least 1.96; and
- (3) standardised regression weights (β) of at least 0.5. (Hox and Bechger, 2012 and Hair *et al.*, 2017a).

4. Findings and discussion

4.1 Sample characteristics

Descriptive statistics of responding firms revealed that the largest proportion of SMEs exporters (81%) was in Kigali city (Appendices: Table A1).

4.2 Exploratory factor analysis results

Initially, the factorability of the 21 items was examined. While the sample size for this study was 105 respondents, moderately larger than the minimum required, the assumption of normality was assumed using the Kolmogorov–Smirnov test (the significance value was greater than 0.05) (Pallant, 2016). The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.79, above the commonly recommended value of 0.5, and the Bartlett’s test of

sphericity was significant $\alpha = *** < 0.05$ (Hair *et al.*, 2017a), indicating that the factor analysis was found to be adequate with all 21 items (Table A2).

The internal consistency of each of the scales was examined using Cronbach's alpha (Hair *et al.*, 2017a). The alphas of three out of five constructs (FLF: 0.77), (EXPERF: 0.82) and (ELF: 0.84) were above the set threshold, whereas the MF (0.61) and ILF (0.68) were moderate. Similarly, convergent and discriminant validity were used to validate the measurement model. Convergent validity was assessed by CR and AVE for each construct, with a minimum threshold of 0.7 for CR and 0.6 for AVE (Ylinen and Gullkvist, 2014). Convergent validity was confirmed, with CR for each construct ranging from 0.738 to 0.822 > 0.7, and AVE for each construct ranging from 0.654 to 0.693 > 0.6 (Table A3). Discriminant validity was assessed using the square roots of the AVE. The corresponding inter-construct square correlation values, ranging from 0.239 to 0.309, were lower than the AVE values (Table A4), suggesting good discriminant validity (Hair *et al.*, 2017b).

Using principal component analysis and the orthogonal method with VARIMAX rotation, two criteria were applied to retain the factors, eigenvalues greater than 1 and factor loading greater than 0.32 (Young and Pearce, 2013). Five factors were extracted, accounting for 88.6% of the cumulative variance, the first factor explained only 40.8%–50% (Khan *et al.*, 2020) (Table A5). Two items (OF3 and MF15) were eliminated because they were weakly loaded, with less than 0.32.

The model fit indices were applied to determine how well the model fits the data; the results in Table A6 show that the threshold for the fit indices was met. Convincingly, the confirmatory factor analysis model proves that the research data were obtained from valid and reliable measurements.

4.3 Structural model and hypothesis testing results

The results of the structural model are shown in Table A7 which presents the path coefficients for the tested hypotheses. EF ($t = 12.101$; $\beta = 0.601$; $p = 0.00$) was the most significant predictor of export performance followed by MF ($t = 12.091$, $\beta = 0.595$, $p = 0.00$). OF ($t = 9.366$, $\beta = 0.542$, $p = 0.00$) was found to be the third most significant factor while IF ($t = 9.306$; $\beta = 0.534$, $p = 0.03$) was the least significant factor. Therefore, all the four hypotheses were positively tested and supported by the results of the structural model.

4.4 Discussion

The findings suggest that an increase in EF raises the level of export performance. In other words, if one wants to make an SME competitive internationally that SME should increase its managerial capabilities (RBV). At the same time, an SME must link its abilities with market knowledge (MBV) by networking domestically and internationally if the company wants to perform better in foreign markets. These findings imply that to be successful, an export firm should combine both internal and external factors because they do not work in isolation; that is, possessing internal capacities alone is not sufficient if one wants to be successful in the export market; they must be supplemented by external factors.

These findings are consistent with those of Fernando *et al.* (2017), Haddoud *et al.* (2018) for OF; Krammer *et al.* (2018), Manzanares (2019); and Staden (2022) for EF, Reis and Fortel (2014) for IF that contradict Osano (2019) in Kenya, who found no significant impact, and Sanyal *et al.* (2020) for MF. The empirical implications of this study are that export performance is achieved by a combination of factors and rarely by a single factor.

5. Conclusion and recommendations

Based on the RBV and the MBV, a comprehensive model delineating the internal and external factors of SME export performance was tested with data from 105 SMEs in Rwanda. Using an exploratory analysis, 16 key factors influencing the level of export performance were identified and grouped into four categories:

- (1) organisational;
- (2) entrepreneurial;
- (3) industry; and
- (4) market.

Based on the results of the SEM analysis, all four hypotheses were supported, corroborating then previous studies. These results imply that organisational, entrepreneurial, industry and market factors influence the export performance of SMEs. However, not all factors have the same influence; therefore, the supremacy of EF over other factors was found. In this context, the proposed resource- and market-based model of export performance was tested and validated in a less developed country, Rwanda, for exporting SMEs.

The theoretical implications are that the resource- and market-based model of export performance tested in this study complements the existing RBV and MBV. By simultaneously assessing several resource and environmental factors, this study makes a valuable contribution to the existing literature on exports. Furthermore, by focusing on an East African country, this study enriches the understanding of export performance in the context of African economies.

In practice, these findings would be very useful for policymakers and exporting SMEs in Rwanda. Because SMEs have limited resources, the government, in collaboration with the Rwandan Private Sector Federation, should provide advisory services to SMEs to strengthen their managerial capabilities, which will enable them to access the international market. An educational strategy for SMEs should be developed (Kasema *et al.*, 2021). In the future, managers will ensure the company's export performance based mainly on developing their capabilities by educating themselves on export-related issues as well as developing their business networks locally and abroad to expand internationally.

Although there are several indications of the suitability of the overall model and its components, some caution should be exercised. Firstly, the cross-sectional approach to data collection may have some common method variance; future research can use longitudinal data to achieve better measurement reliability. Secondly, the developed model was tested on exporting SMEs in Rwanda; it would be interesting for future research to test this model in other cultural contexts, such as in West African countries. This will improve the validity of the model and provide evidence of the robustness of the research model in different cultural contexts.

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Business characteristics		Frequency	(%)	Cumulative %
<i>a. Firm age</i>				
Valid	3-5	78	74.3	74.3
	6-10	23	21.9	96.2
	11+	4	3.8	100.0
	Total	105	100.0	
<i>b. Number of country of destination</i>				
Valid	1-3	67	63.8	63.8
	3-5	35	33.3	97.1
	5+	3	2.9	100.0
	Total	105	100.0	
<i>c. Sector of activities</i>				
Valid	Agro-processed	77	73.3	73.3
	Manufactured	11	10.5	83.8
	Hides and skins	3	2.8	86.6
	Livestock and animals	5	4.8	91.4
	Horticulture	8	7.6	99.0
	Others (sand in DRC)	1	0.9	100.0
	Total	105	100.0	

Table A1.
Sample characteristics
(*n* = 105)

Source: SPSS output, 2020

Table A2.
KMO and Bartlett's
test

Kaiser–Meyer–Olkin measure of sampling adequacy	0.798
<i>Bartlett's test of sphericity</i>	
Approx. chi-square	536.690
<i>df</i>	10
Sig.	0.000

Source: SPSS output, 2020

Table A3.
Reliability and
convergent validity

Constructs	OF	EF	IF	MF	EXPERF
Cronbach's alpha	0.775	0.846	0.682	0.614	0.825
Composite reliability (CR)	0.822	0.738	0.792	0.782	0.761
Average variance extracted (AVE)	0.672	0.659	0.654	0.693	0.678

Source: Researcher's compilation based on AMOS results, 2020

Factor correlation	Factor correlation	Comparison of squared correlation with AVE	Discriminant validity
OF ↔ EXPERF	0.556	$0.309 < 0.672$	Established
EF ↔ EXPERF	0.489	$0.239 < 0.659$	Established
IF ↔ EXPERF	0.643	$0.297 < 0.654$	Established
MF ↔ EXPERF	0.523	$0.273 < 0.693$	Established

Source: Researcher's compilation based on AMOS Outputs, 2020

Table A4.
Discriminant validity

Component	Total variance explained								
	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	10.597	48.167	48.167	10.597	48.167	48.167	8.979	40.815	40.815
2	3.749	17.042	65.209	3.749	17.042	65.209	3.899	17.720	58.535
3	1.990	9.046	74.255	1.990	9.046	74.255	2.720	12.362	70.897
4	1.670	7.592	81.847	1.670	7.592	81.847	2.015	9.158	80.056
5	1.486	6.753	88.601	1.486	6.753	88.601	1.880	8.545	88.601
6	0.702	3.193	91.794						
7	0.463	2.105	93.899						
8	0.394	1.793	95.692						
9	0.282	1.282	96.974						
10	0.204	0.928	97.902						
11	0.183	0.833	98.735						
12	0.111	0.504	99.240						
13	0.078	0.354	99.594						
14	0.049	0.223	99.817						
15	0.021	0.096	99.913						
16	0.014	0.063	99.976						
17	0.005	0.024	100.000						
18	2.459E-16	1.118E-15	100.000						
19	2.619E-32	1.191E-31	100.000						
20	-8.787E-18	-3.994E-17	100.000						
21	-4.053E-17	-1.842E-16	100.000						
22	-2.649E-16	-1.204E-15	100.000						

Note: Extraction method: Principal component analysis

Table A5.
Total variance explained

Table A6.
Fit indices for the
measurement model

Fit index	χ^2 (<i>p</i> -value)	CMIN/ <i>df</i>	GFI	RMSEA	TLI	CFI
Recommended values	≥ 0.05	≤ 3	≥ 0.9	≤ 0.08	0.9	0.9
Sources	Byrne (2016)	Gefen <i>et al.</i> (2000)	Rehman <i>et al.</i> (2015)	Kumar, 2015	Lei and Wu (2007)	Hair <i>et al.</i> (2017b)
Results	0.047	2.223	0.912	0.056	0.966	0.935

Source: Researcher's compilation based on AMOS results, 2020

Table A7.
Hypotheses and
results

Relationship between constructs	(β)	CR (<i>t</i> -value)	<i>p</i> -value	Hypothesis	Remarks
OF → EXPERF	0.542	9.366	0.000	<i>H1</i>	Supported
EF → EXPERF	0.601	12.101	0.000	<i>H2</i>	Supported
IF → EXPERF	0.534	9.306	0.003	<i>H3</i>	Supported
MF → EXPERF	0.595	12.091	0.000	<i>H4</i>	Supported

Source: Researcher's compilation based on AMOS output, 2020

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