The effect of customer segmentation factors on export performance of SMEs

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C H R O N I C L E	A B S T R A C T
	Export plays an essential role for boosting the economy of developing countries. On the other hand, Small and Medium Enterprises (SMEs) are important part of any economy. Therefore, it is important to determine the effects of various factors influencing on development of export activities. This paper presents an empirical investigation to study the effects of customer segmentation factors on the performance of export activities of SMEs in Iranian food industry. The study selects a sample of 227 people who were involved in development of SMEs in city of Tehran, Iran. The study designs a questionnaire in Likert scale consists of 34 questions, Cronbach alpha and KMO are equal to 0.809 and 0.764, respectively, which are well above the desirable levels. Using principal component analysis, the study has determined that different factors including competitive structure, organizational strategy, customer's studies and organizational factors influencing the most on promoting export activities.

1. Introduction

Export plays an essential role for boosting the economy of developing countries. On the other hand, Small and Medium Enterprises (SMEs) are important part of any economy. Therefore, it is important to determine the effects of various factors influencing on development of export. Le and Valadkhani (2014) examined the efficiency performance of exporting versus non-exporting manufacturing SMEs using the Business Longitudinal Database compiled by the Australian Bureau of Statistics over the period 2005–2006. They reported that overall manufacturing SMEs could improve their technical efficiency levels over time, specifically the exporting ones nearly reaching 80%. Among companies of the same size and the same narrowly defined industry, they determined that the non-exporting SMEs appeared to have lower efficiency levels compared with the exporting ones. One may associate these efficiency differences to the inclusion of more exporting companies in the database and/or the better implementation of production technology by exporting SMEs. They believed improving SME efficiency performance could be an effective way to enhance their success in global export markets by following a number of initiatives/programs already applied in other OECD countries. Ayob and

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Freixanet (2014) made an assessment on the effect of public export promotion programs (EPPs) among SMEs in Malaysia. They examined three indicators, level of awareness, frequency of use, and perception of usefulness, according to a firm's export status. The global evaluation in their survey implied that exporters were more frequent users of EPPs and perceive them to be more useful than non-exporters. However, both groups represented higher levels of awareness, were frequent users, and perceived the programs associated with export info/knowledge were more usefulness than programs associated with financial assistance. Further analysis also disclosed that the frequency of implementation and the perception of usefulness for most programs were positively associated with export experience, but not to export turnover.

Hilmersson and Jansson (2012) did a survey on how SMEs could reduce their liability of network outsidership in the process of building a network insider position in foreign business networks. By studying how SMEs build insidership positions in institutionally different business networks, they contributed to the network method to firm internationalization. Descotes et al. (2011) proposed a tool of the institutional country profile relevant to exporting SMEs. The proposed instrument of this survey was believed to help diagnose countries' exporting strengths and weaknesses, according to their institutional conditions. Crick (2004) reported different reasons on why a sample of executives from small companies discontinued export activities and second, perceptions towards policy assistance that could motivate them to recommence overseas activities in the future. In this study, entrepreneurial learning was determined to exit in companies that influenced some managers to overcome identified barriers and engage in alternative modes of international activity to the export route, whereas others decided to focus on domestic opportunities. Martin-Tapia et al. (2008) reported that a proactive environmental strategy was positively associated with a firm's export performance. Besides, they also reported that general uncertainty could impose a moderating impact on the relationship between proactive environmental strategies and export intensity for SMEs. Majocchi et al. (2005) examined the impact of firm size and business experience on export performance by giving an insight on these complex relationships with a special concentration on SMEs. They developed a general model and examined it using a sample of Italian manufacturing companies that spans the 1997–2001 period. They reported that it is not business experience per se which was essential but that it was the relative change in experience that truly influences on export performance.

Leonidou and Katsikeas (2003) investigated the role of foreign customer influences in building relationships with US exporting SMEs. They examined the impact of foreign customer influence strategies on constructing business relationships with exporting manufacturers, based on information collected from a sample of US SMEs. They reported that there was a low to moderate application of mediated effect strategies by overseas customers, with reward- and coercion-based influence strategies more frequently used, and that non-mediated influence strategies were more commonly employed, with those relying on the expert status of the partner being the most popular. The combined impact of mediated and non-mediated influence strategies, and the degree to which they were exercised, appeared to substantially influence different dimensions of the exporter-importer working relationship. The study gave some insight to determine four kinds of exporting firms—inert complacents, problematic satisfiers, collaborative aimers, and hazardous agitators—each characterized by an idiosyncratic relationship profile composed of bigger or less than average use of mediated and non-mediated influence strategies by their customers. Several managerial implications were derived from the study findings—managers were encouraged to realize and take an active role in designing the kinds and levels of influence overseas customers may look to use, and to realize that financial transactions were inseparable from behavioural interactions in such partnerships.

2. The proposed study

This paper presents an empirical investigation to study the effects of customer segmentation factors on the performance of export activities of SMEs in food industry. The study selects a sample of 227 people
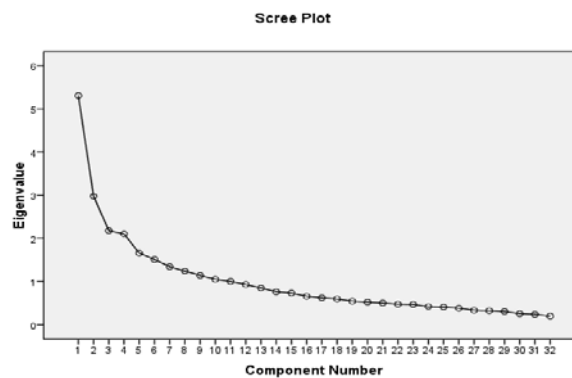
who were involved in development of SMEs in city of Tehran, Iran. The study designs a questionnaire in Likert scale consists of 34 questions, Cronbach alpha and KMO are equal to 0.809 and 0.764, respectively, which are well above the desirable levels. Table 1 demonstrates the summary of some statistics on factors.

Table 1
The summary of factors influencing on export development on SMEs

		N	Min	Max	Skewness		Kurtosis	
					Statistic	Std. Error	Statistic	Std. Error
q1	Organizational capabilities	227	1	5	-0.509	0.162	-0.462	0.322
q2	Multiplicity of competing	227	1	5	-0.464	0.162	-0.493	0.322
q3	Growing demand for customized products	227	1	5	-0.338	0.162	-0.64	0.322
q4	Distribution strategy	227	1	5	-0.378	0.162	-0.385	0.322
q5	The bargaining power of suppliers	227	1	5	-0.217	0.162	-1.084	0.322
q6	Promotion products	227	1	5	-0.619	0.162	-0.609	0.322
q7	Power Retail	227	1	5	-0.24	0.162	-1.383	0.322
q8	Price sensitivity	227	1	5	-0.204	0.162	-1.185	0.322
q9	Distribution channels	227	1	5	-0.784	0.162	0.286	0.322
q10	Industry growth rate	227	1	5	-0.538	0.162	-0.665	0.322
q11	Fashion	227	1	5	-0.695	0.162	0.287	0.322
q12	Customer database	227	1	5	-0.654	0.162	0.01	0.322
q13	product life cycle	227	1	5	-0.044	0.162	-0.869	0.322
q14	Focus on key customers	227	1	5	-0.597	0.162	-0.027	0.322
q15	Brand management	227	1	5	-0.362	0.162	-0.701	0.322
q16	Find new space market	227	1	5	-0.752	0.162	0.024	0.322
q17	Customer needs	227	1	5	-0.465	0.162	-0.064	0.322
q18	Variety of products	227	1	5	0.052	0.162	-0.904	0.322
q19	Advertising strategy	227	1	5	-0.811	0.162	0.139	0.322
q20	Bargaining power of customers	227	1	5	-0.421	0.162	-0.567	0.322
q21	Identifying the target market	227	1	5	-0.291	0.162	0.541	0.322
q22	Creating shared value	227	1	5	-0.528	0.162	-0.948	0.322
q23	market prediction	227	1	5	-0.5	0.162	1.12	0.322
q24	Mass market restrictions	227	1	5	-0.435	0.162	0.606	0.322
q25	National brands	227	1	5	0.022	0.162	-1.129	0.322
q26	Consumer Confidence	227	1	5	-0.199	0.162	-0.914	0.322
q27	Marketing Research	227	1	5	-0.711	0.162	-0.004	0.322
q28	Conformity with the target market	227	1	5	-0.369	0.162	-0.566	0.322
q29	Supply of raw materials	227	1	5	-0.452	0.162	0.006	0.322
q30	Competitive advantage	227	1	5	-0.441	0.162	-0.818	0.322
q31	Brand loyalty	227	1	5	-0.596	0.162	-0.282	0.322
q32	Strategic orientation	227	1	5	-0.844	0.162	0.538	0.322
q33	Shopping Experience	227	1	5	-0.768	0.162	0.225	0.322
q34	Customization	227	1	5	-0.758	0.162	0.194	0.322

As we can observe from the results of Table 1, Kurtosis statistics for most components are within desirable levels. Table 2 shows the results of total variance. Moreover, to find the number of essential factors, we use Scree plot shown in Fig. 1. As we can observe from the results of Scree plot, there are four factors influencing on export development. Table 3 presents the summary of principal component analysis after rotation.

Fig. 1. The result of Scree plot

Table 2
The summary of total variance

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.309	16.591	16.591	5.309	16.591	16.591	3.558	11.118	11.118
2	2.976	9.302	25.893	2.976	9.302	25.893	2.436	7.612	18.731
3	2.181	6.816	32.709	2.181	6.816	32.709	2.286	7.145	25.876
4	2.104	6.574	39.283	2.104	6.574	39.283	2.003	6.26	32.135
5	1.657	5.179	44.462	1.657	5.179	44.462	1.932	6.037	38.173
6	1.511	4.722	49.184	1.511	4.722	49.184	1.9	5.938	44.111
7	1.345	4.204	53.387	1.345	4.204	53.387	1.743	5.447	49.558
8	1.24	3.875	57.262	1.24	3.875	57.262	1.549	4.84	54.399
9	1.137	3.552	60.815	1.137	3.552	60.815	1.466	4.581	58.98
10	1.049	3.279	64.094	1.049	3.279	64.094	1.339	4.183	63.163
11	1.004	3.136	67.23	1.004	3.136	67.23	1.301	4.067	67.23
12	0.932	2.912	70.142						
13	0.848	2.65	72.792						
14	0.757	2.367	75.159						
15	0.73	2.281	77.44						
16	0.656	2.049	79.488						
17	0.621	1.942	81.43						
18	0.595	1.86	83.29						
19	0.543	1.696	84.985						
20	0.522	1.631	86.616						
21	0.502	1.569	88.186						
22	0.474	1.483	89.668						
23	0.467	1.46	91.128						
24	0.418	1.307	92.436						
25	0.407	1.273	93.709						
26	0.38	1.189	94.897						
27	0.329	1.027	95.924						
28	0.32	1	96.924						
29	0.302	0.943	97.867						
30	0.251	0.785	98.652						
31	0.236	0.737	99.389						
32	0.196	0.611	100						

Table 3
The summary of principle component analysis after rotation

Factor		Rotated Component Matrix[a]										
		1	2	3	4	5	6	7	8	9	10	11
q2	Multiplicity of competing	0.856										
q20	Bargaining power of customers	0.852										
q10	Industry growth rate	0.821										
q3	Growing demand for customized products	0.807										
q12	Customer database		0.795									
q34	Customization		0.755									
q33	Shopping Experience		0.653									
q11	Fashion		0.527									0.41
q30	competitive advantage			0.745								
q1	Organizational capabilities			0.687								
q15	Brand management			0.653								
q27	Marketing Research			0.483		0.384						
q13	product life cycle				0.789							
q4	Distribution strategy				0.626							
q18	Variety of Products			0.362	0.55	0.331						
q6	promotion products				0.458	0.405						0.35
q17	Understanding customer needs		0.336			0.707						
q31	Brand loyalty					0.691						
q23	market prediction						0.767					
q21	Identifying the target market						0.725					
q16	Find new space market						0.645					
q24	Mass market restrictions						0.46		0.419			
q5	The bargaining power of suppliers							0.811				
q8	Price sensitivity							0.755				
q32	Strategic orientation								0.68			
q19	Advertising Strategy	0.332							0.475	0.384		
q14	Focus on key customers	0.355							0.47		0.392	
q22	Creating shared value									0.846		
q7	Power Retail							0.354		0.451		
q28	Conformity with the target market										0.667	
q9	Distribution channels										0.542	
q26	Consumer Confidence											0.73

Finally, Table 4 presents the summary of factors associated with development of export activities.

Table 4
The summary of factors for development of export activities

Question	Description	Factor	Factor loading
q2	Multiplicity of competing		0.856
q20	Bargaining power of customers		0.852
q10	Industry growth rate	Competitive structure	0.821
q3	Growing demand for customized products		0.807
q12	Customer database		0.795
q34	Customization		0.755
q33	Shopping Experience	Customer's studies	0.653
q11	Fashion		0.527
q30	Competitive advantage		0.745
q1	Organizational capabilities	Organizational factors	0.687
q15	Brand management		0.653
q27	Marketing Research		0.483
q13	Product life cycle		0.789
q4	Distribution strategy	Product Strategy	0.626
q18	Variety of Products		0.55
q6	Promotion products		0.458
q23	market prediction		0.767
q21	Identifying the target market		0.725
q16	Find new space market	Market analysis	0.645
q24	Mass market restrictions		0.46
q19	Advertising Strategy		0.68
q14	Focus on key customers	Organizational strategy	0.475
q32	Strategic orientation		0.47

4. Discussion and conclusion

In this paper, we have presented an empirical investigation to determine the most important factors influencing on development of export activities in SMEs. Competitive structure is the first important factor with four sub-components including multiplicity of competing, bargaining power of customers, industry growth rate and growing demand for customized products. In our survey, Customer's studies is the next factors, which includes customer database, customization, shopping experience and fashion. Organizational factors are other important issues influencing on export development. This includes competitive advantage, organizational capabilities, brand management and marketing research. Product strategy is another important factor, which includes four factors including product life cycle, distribution strategy, variety of Products and promotion products. Market analysis is the next important factor, which includes four sub-factor including market prediction, identifying the target model, detecting new market share and mass market restrictions. Finally, organizational strategy is the last important factor with three sub-components of advertising strategy, focus on key customers and strategic orientation. The results of our study are consistent with other findings reported on the literature (Dikova et al., 2015). Andersen (2006), for instance, developed a conceptual framework and a range of propositions for empirically testing SME export managers' assessment and implemented of personal contacts as a vehicle for export information generation. They argued that the perceived value of such activities differed with the properties of the personal network, the export manager's international experience and the use of information and communication technology in information generation.

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