Construction of Competitive Advantage Instrument in Jordanian SME Context Using Structural Equation Modelling

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Abstract
Jordanian SMEs are becoming increasingly hard to endure and thrive in the aggressive entrepreneurial world economy due to weak capital structure, poor leadership and weak marketing strategy, as well as other legislative limitations. As a consequence, Jordan faces problems in achieving full advantage from the SME industry as well, making an inadequate contribution to the domestic GDP. Competitive advantage (CA) can, however, perform a crucial part in achieving fast economic development due to sustainability of SMEs and a coherent appropriate input to Jordan's GDP. But the construction of CA is still underdeveloped and ignores a unifying hypothesis, resulting in fragmented study attempts. In addition, there are now several frameworks for the evaluation and benchmarking of firm performance (FP), but none of these frameworks provide an approach for assessing the competitive advantage of the firm. Therefore, this study aims to explore and determine the dimensionality of items measuring CA construct. The issue has previously been discussed, but there is still no prevalent agreement between scholars as the number of dimensions and items to assess CA should be used. This research investigated the CA measurement items created by past researchers and tailored these items to accommodate the environment of SMEs in Jordan. In this regard, the Delphi technique has been combined by the Structural Equation Modeling (SEM) and also followed the steps of instrument creation developed by Churchill (1979). The primary objective of this research is to develop an instrument capable of assessing CA in Jordanian SME sector. The tool developed in this research provides a relevant and efficient tool that disclosed three aspects by satisfying all the socio-metric properties required by the measuring tool in the social science, namely dimensionality, reliability, and validity.

Keywords: Competitive Advantage (CA), Firm Performance (FP), Small and Medium Enterprise (SME), Structural Equation Modelling (SEM), Gross Domestic Product (GDP)

1. Introduction
Small businesses can initiate financial progress and rapid industrialization, particularly in emerging nations backed by present scholarly literature (Audretsch, 1998; Urata, Shujiro, and Kawai, 1998; Berry and Mazumder, 1991; Ogechukwu, Ayozie, Oboreh, Umukoro, and Uche, 2013). Most governments around the globe have therefore understood the important commitment that SMEs have produced to the triumph of justifiable development, work development and misery alleviation (Swerczek and Ha, 2003). In addition, most SMEs have been acknowledged as vibrant, creative, effective, and their tiny magnitude enables adaptability, immediate reactions, brief decision-making and policy-making cycle, and faster client reporting (Singh, 2009). Despite the notoriety of SMEs, the output of SMEs has mostly fallen behind aspirations (Arinaitwe, 2006). Therefore, due to international competitiveness, technological growth and changing customer requirements, they are under tremendous stress to withstand in both national and global economies.

In fact, owing to weak investment framework, bad leadership and advertising approach, improper entrepreneurial conduct and other legislative limitations, countless Jordanian SMEs appear to have been shut down within a few years of beginning their operating operations and this is a very prevalent occurrence worldwide (Montoo, 2006). It is therefore becoming increasingly hard for Jordanian small and medium-sized enterprises to endure and thrive in the hostile global enterprise economy (Ahmed, 2001) and Jordan confronting problems in achieving full benefits from the SME industry (Ahmed, 2001; Chowdhury and Rashid, 1996). Competitive advantage (CA) can therefore serve a crucial part in achieving fast economic development due to sustainability of small and medium-sized enterprises and a coherent input to Jordan's GDP.
The competitive advantage of the company, however, is undeniably a distinctive construct that is at the heart of strategic management literature (Fahy, 2000; Ma, 2000, 2004; Barney, Wright, and Ketchen, 2001; Porter, 1985; Barney, 1991; Peteraf, 1993; Ma, 2004), but there is significant dispute over the construction of the CA and its applicability to the business sector from 1959 to the present (Sachitra, 2016). CA structure is therefore still underdeveloped and ignores a unifying theory, contributing to piecemeal study efforts. In addition, there are now several frameworks for the evaluation and benchmarking of firm performance (FP), but none of these frameworks provide a strategy for assessing the competitive advantage of the firm. As a result, all Jordanian SME industry stakeholders require a measurement tool to assess the CA of SMEs and take the required responsive steps. In his respect, this research aims to investigate and determine the dimensionality of items assessing Jordanian SMEs' CA construct.

2. Literature Review

2.1 Competitive Advantage (CA)

CA is considered as portion of the upper-level efficiency base (Ismail, Rose, and Abdullah, 2010). CA is defined as the capacity of a company to enhance the value of its products, decrease the cost of its products, or expand business presence or benefit (Gupe and Rose, 2010). Porter (1990) describes profitable benefit at company stage as efficiency development expressed in either reduced expenses or distinguished pricing items. Smith (2013) points out that the competitive advantage is the level to which companies can contend with companies elsewhere in a particular region. Newbert (2008) describes CA as the degree to which a firm investigates its possibilities, risks are neutralized and price reduced.

However, Sigalas (2013) argues that a firm's degree of competitiveness is to explore possibilities, neutralize treatments, and reduce costs. On the other side, according to Ma (1999b) CA is the basis of stronger results that emerges from the differential between companies alongside any dimension of the features and qualities of the company that allows one company to produce strong client valuation than others. According to a company's Flynn, Schroeder and Sakakibara (1995) CA is the manner it generates significance for its clients, enabling it to create and maintain a defensible place in its product market.

It is cleared from CA's prior research that CA comprises of three features (Meutia and Ismail, 2012) namely: Long life, hard to imitate and hard to define. Consequently, CA over rivals is achieved by providing superior value as well as keeping a healthy connection with clients either through reduced rates or by differentiating products and facilities at a fair cost to ensure better performance. As a result, CA is often a key element for a company that provides a company an advantage beyond what the competition has or does.

2.2 Dimensions and Measurements of Competitive Advantage

Kadocsu (2006) emphasizes that it is possible to quantify and access the measuring points of competitiveness such as revenue, profit and productivity, but the maximum times are difficult to quantify or access. In addition, Singh, Kiran and Goyal (2015) state that partial productivity indices are not adequately successful in measuring CA and a company's technical progress since there is no universally accepted criterion for measuring productivity. A long-term rather than short-term direction should be taken into consideration by any assessment measure of the competitiveness of a firm. The notion of profitability can be vague as it involves the definition of an era of moment during which the tests are conducted. Profitability can therefore be referred to in the short or long term (Depperu and Cerrato, 2005). These problems contribute to indices being investigated to evaluate competitive advantage rather than efficiency (Voulgaris, Papadogoonas, and Lemoonakis 2013).

Therefore, there should be definite measurements to assess a company's competitive advantage in attempt to define the variables influencing competitive advantage. Competitive advantage in previous research deals with the value and quality dimension that could be mentioned as cost-based, product-based, and service-based (Ismail, Rose, and Abdullah, 2010). The cost-based benefit includes reduced manufacturing costs and reduced price products. Higher product quality, packaging, layout, and style are the product-based advantages. Through product flexibility, accessibility, shipping velocity, and technical support, business firms can also gain service-based advantages.

This research has created three dimensions to evaluate competitive advantage constructs, namely cost leadership, product quality, and product differentiation, taking into account previous research. These three dimensions are consistent with the cost-based, product-based, and service-based models that are also used in Awwad's (2011) research; Jie, Parton, and Cox (2013); Sukati, Hamid, Baharun, Tat, and Said (2011); Lakhal (2009); Newbert (2008) to evaluate competitive advantage in distinct contexts at firm stage. Furthermore, a single explanatory element is not an appropriate measure of competitiveness, according to Depperu and Cerrato (2005).
2.3 Cost Leadership

Cost management is a strategy that stresses the efficiency of the organization. Cost leadership's objective is to be the industry's lowest-cost producer of products and facilities (Porter, 1996). Porter (1985) described cost leadership in combination with active marketing as normal trading products. He also stated that cost leadership is expected by decreasing and managing expenses as a means of achieving viable commercial benefit (Porter, 1985). Therefore, small and medium-sized enterprises are attempting to do company with the stress of minimizing product or service expenses to generate competitive advantage. If the expected sale price can be at least near to the business median, then highest revenue will be earned by the smallest cost manufacturer. This is usually associated with extensive enterprises providing standard products at minimum price and with tiny differentiation that satisfies the total amount of clients, leading in competitive advantage being created. Especially if a company has a significant price benefit over the rivalry and can further increase its market share by doing so (Barney, 1991).

2.4 Differentiation of Product

Differentiation relates to differentiating the firm's item or service from its competitor or doing something to be distinctive in the SME industry in an inimitable manner. Differentiation can be accomplished in different respects, such as architecture, brand image, technology, characteristics, customer service, and network of dealers. Product dimension differentiation is usually associated with setting the highest cost for the manufactured goods and providing the customer with additional quality characteristics (Porter, 1996). According to Barney (1991), distinction indicates a suitable cost that includes the additional cost of manufacturing and also gives clients definite grounds for choosing products for consumption over other less distinguished products.

There are many methods in which firms can distinguish themselves and their products or facilities from their competing firms (Thompson & Strickland, 2008; Porter, 1980). The instances listed above are not just how firms differ from their peers in differentiating their products or facilities. Indeed, Barney and Hesterley (2006) argue that product differentiation is eventually a manifestation of people and organizations’ innovation within firms. It is restricted only by the possibilities that occur or can be generated in a specific sector and by firms’ desire and capacity to find methods to bring benefit of those chances creatively (Barney and Hesterley, 2006).

2.5 Quality of Product

According to Garvin (1984, 1988); Pirsig (1974); Reeves and Bednar (1994) Product Quality defined the features of an item or service that can add to the satisfaction of specified or presumed client requirements and seeks to create competitive advantage for a business organization as well. Product quality relates to the point to which products fulfill client requirements and stated that improving product quality should result in customer satisfaction and greater revenues (Smith and Wright, 2004).

Shank and Govindarajan (1994) asserted that in order to gain competitive advantage, performance is commonly acknowledged as a main profitable weapon of companies. It has also been argued that performance is the foundation for creating and retaining a worldwide strategic benefit (e.g. Porter 1991; Flynn et al. 1995; Terziowski et al. 1999). Previous surveys by both utility suppliers and merchandise manufacturers have assured that performance appears to boost yields (Bharadwaji and Menoon, 1993; Buzzeell and Galee, 1987; Hendricks and Siinghal, 1996; Kuzmaa and
Shanklin, 1992; Powell, 1995) that create automatic competitive advantage. In this sense, the advantage of generating quality products or services and attaining competitive advantage is that during both excellent and poor financial times a firm can perform well in relation to its competitors.

3. Method

The main aim of this study is to develop an instrument capable of measuring CA of a firm as well as to identify relevant dimensions and dimension related items of CA. To be able to fulfill aims, this research usually pursued the rules and stages described in the literature on instrument development (DeVellis, 2003; HinKin, 1995). Thus, the multi-phase protocol of Churchill (1979) and DeVellis (2003) accompanied the development of a multivariate measuring instrument for the construction of Competitive Advantage (CA) as well as the rules of Gerbing & Anderson (1988) for measuring reliability.

As Jordan faces problems in achieving peak benefits from the SME industry as well as contributing inadequately to domestic GDP, competitive advantage (CA) can serve a crucial part in achieving fast economic development due to sustainability of SMEs and a continuous input to Jordan's GDP. CA structure, however, is still underdeveloped and ignores a unifying hypothesis, resulting in fragmented study attempts. In addition, there are now several frameworks for the evaluation and benchmarking of company results (FP), but none of these frameworks provide a strategy for assessing the competitive advantage of the firm. Researchers therefore conducted this study in the different department of Jordan to create the SME industry CA measuring instrument in Jordan. Researchers drew into account and engaged officials of the various SME industry in Jordan in the stages of the study method.

3.1 Preliminary Study

This study's scientists collaborated rigorously to generate operational definitions for the three CA sub-constructs during the first stage of instrument design process, relying heavily on the CA concept provided by Porter (1990), Barney (1991), Ma (1999), Smith (2013), Sigalas (2013), Newbert (2008), and Flynn, Schroder and Sakakakibara (1995) as well as SME-related literature. Once the scientists decided on conceptual concepts, with a sum of 14 pieces produced, each individually produced objects for all three dimensions. For consistency of significance, the scientists sophisticated object wording to assist guarantee that each object marked no more than one dimension, reaching consensus on each object through the view of the specialists. The ensuing three measurements are all facets of a firm's CA that support face validity.

3.2 Focus Group Discussion

Based on the literature of previous leadership, it is difficult to achieve that the maintained indices are most important to the CA framework. First, because the literature reviewed is not linked solely to the SME's CA. Second, because some appropriate factors may not be identified in the literature, the scientists therefore chose to mix deductive and inductive methods to literature assessment (HinKin, 1998). Researchers therefore organized two focus group sessions to check the relevance and completeness of the CA dimensions selected items. According to Cowton & Downs (2015), the frequent use of concentrate organizations in cultural humanities is a significant qualitative study technique for measuring device growth (Cowton & Downs, 2015).

In this study, scientists in the first study team meeting and second meeting are intended to deepen the debate on the general CA of distinct SMEs; they regarded the perspective of power engaged in managing SMEs in Jordan. Establishing two focus groups debate comprising 14 main topics with distinct context scientists will obtain the chance to obtain understanding into the distinct views of SME CA measurement. In particular, scientists are trying to find out from the respondents whether the three CA sub-constructs’ measurement 12 items chosen in phase 1 are suitable for evaluating a firm's CA or whether there are lacking objects or indices. Three (3) more indicators were introduced as a consequence of the focus groups debate, leading in 15 items chosen and accepted in the tool development stage debate focus group.

3.3 Delphi Panel & Pretest

Focus groups are generally not private and possibly less open-minded (Cowton & Downs, 2015; Bruggen, E. & Willems, P. 2009). To solve these disadvantages of focus group debate, this study's scientists used the Delphi technique to achieve consensus on sizes & objects as well as perform pre-testing to minimize the confusion between items. According to Caffey et al., (2001), Worrell et al. (2013) the Delphi method includes an organized and iterative method in which specialists express their private views in successive sessions.

Specifically, this Delphi board involves ten (10) panelists with distinct professions: (a) owners of SME business and (b) Entrepreneurship and Innovation professionals (scholars, public representatives) with an intense focus on CA.
The scientists seek agreement within the expert committee by arranging their views after each round (Schmidt, 1997; Rowe et al., 2005; and Von Der Gracht, 2012).

The agreement needed was reached after two stages which led in 5 items being excluded and 10 items being selected. Table 1 provides an outline of products that have been deleted and approved. As pre-testing is critical and is frequently suggested by academics to define issues that are probable to be found from object discrimination, internal consistency, reaction levels, and overall parameter assessment (Hoque & Awang, 2019; Hoque, Awang, & Gwadabe, 2018; Hoque, 2018a; Hoque, 2018b; Hoque et al., 2017; Hoque, Awang, & Salam, 2017a; Hoque, Awanf, & Siddiqui, 2017b; Hoque & Awang, 2016a; Hoque & Awang, 2016b; Hoque & Awang, 2016c; Hoque, Awang, & Ghani, 2016; Awang, 2015). For the prevention of evaluating the performance of the freshly established instrument, 20 respondents were chosen in the pre-test as suggested by Hertzog (2008) with expertise in questionnaire production and customization. The instrument was therefore created and used depending on the specialists’ recommendations.

Table 1. Operational definitions and items of the three dimensions of CA of a firm

<table>
<thead>
<tr>
<th>CA Dimensions</th>
<th>Sources</th>
<th>Operational Definition &amp; Items of the five dimensions of CA</th>
<th>According to Focus Groups</th>
<th>According to Delphi Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Leadership</td>
<td>Miller (1986); Miller and Friesen (1986); Porter (1985); White (1986); Yamin et al. (1999)</td>
<td>Cost leadership is a strategy that emphasizes organizational efficiency and contributes to being the industry's lowest-cost producer of products and services.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We are happy with the connection between supplier and vendor in price monitoring.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We are happy with the raw material inventory turnover.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We are attempting to continually improve surveyor abilities.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To improve effectiveness, we are using electronic technologies.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We are happy with the efficacy of main value chain elements.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Differentiation of Product</td>
<td>Miller (1986); Miller and Friesen (1986); Porter (1985); White (1986); Yamin et al. (1999)</td>
<td>Product differentiation relates to differentiating its product or service from its competitor or doing something to be distinctive in an inimitable manner.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For our product, we use distinctive technology.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>It's hard for rivals to duplicate our products.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The image of our product is distinctive.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We are distinctive in design in product models.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the product mix, we are versatile.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We use innovative marketing strategy for the item.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Quality of Product</td>
<td>Flynn et al. (1994)</td>
<td>The quality of the product relates to the point to which products fulfill customer requirements.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Before the item is manufactured, new item designs are carefully evaluated.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the new product development method, customer demands are carefully evaluated.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New product quality is more important than cutting costs of it.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product quality is more crucial than timely shipment of product.</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>
3.4 Survey Instrument Development and Administration

The research used 10 chosen items at this point to develop a firm's CA tool. The created products and the tool will be used to evaluate a firm's CA in the pilot research phase. In view of the intent of creating a measuring tool appropriate for a wide spectrum of SMEs in Jordan, the newly developed survey tool was circulated to 220 SME owners in Jordan through postal mail service for pilot study. To understand the research instrument clearly, this study pursued the guidelines suggested by Maxwell (1996); Hoque et al. (2017a) and Hoque et al. (2017b) for the respondents. A sum of 134 managers finished the survey after a span of eight months, providing a response rate of 60.9 percent, and after removing incomplete survey tools, our pilot study findings are based on responses from 100 managers of SMEs. The organization age ranges between 2 and 12 years in our sample. The employees range from 1 to 250 with an average of 7 employees. A sum of 72 percent of organizations with fewer than 50 staff are small organizations.

3.5 Pilot Study

A pilot survey was performed and Exploratory Factor Analysis (EFA) was performed via randomly chosen one hundred (100) participants as a minimum sample size of the pilot research suggested by Hoque et al. (2017), Hoque and Awang (2016), Awang (2015); Hair et al. (2010) to establish the underlying dimensionality of CA construct and determine internal validity. The target population was absolutely considered the recommendations proposed by Salkind (2010) when administering the pilot study instrument.

3.6 Exploratory Factor Analysis (EFA)

In this research, EFA used to examine the interrelationships between the three dimensions of CA that found groups of products with sufficient normal variety to warrant their classification as a factor grouping together. Under EFA, Kiser-Meyer-Olkin and Bartlett's sphericity sample were exploited in this research to assess the sampling adequacy suggested for the assessment to face the situation to the variable proportion. For the factor analysis to be appropriate, Bartlett's sphericity test should be significant at P<0.05 (Hair, Black, Rabin & Anderson, 2010; Hoque et al., 2017; Hoque and Awang, 2016; Awang, 2012 and 2015).

The KMO varies from 0 to 1, but over 0.6 is usually appropriate (Hoque and Awang, 2016; Awang, 2012). Total variance explained before further assessment was also examined as a method of extraction of items in which individual values reaching 1.0 are obtained into different parts (Hoque and Awang, 2016; Awang, 2012; Pallant 2007). In addition, the inverted element matrix was examined and for further evaluation only objects with a factor load above 0.6 were maintained (Hoque and Awang, 2016; Hoque, Awang, Baharu, Siddiqui, 2018a; Hoque, Awang, Jusoff, Salleh, & Muda, 2017c; Hoque, Awang, Muda, & Salleh, 2018b; Hoque, Awang, Siddiqui, & Sabiu, 2018c; Awang, 2012).

Nevertheless, reliability analysis for the test products were performed during the EFA phase and only items with a Cronbach's Alpha of 0.7 and above were considered Hoque, Siddiqui, Awang (2018d); Hoque, Gwadabe, & Rahman (2017c); Hoque and Awang, (2016); Awang, (2012); Awang et al., (2017a); Fornell and Larcker (1981); Nunnally (1997, 1978) and Hair (1998) proposed that a Cronbach's Alpha of 0.70 or greater would reveal that the tool had a higher reliability standard.

4. Results of Pilot Study

The result of the pilot study is presented as follows:

Table 2. KMO and Bartlett’s test for the items of CA construct

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>.848</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. Chi-Square</td>
<td>667.913</td>
</tr>
<tr>
<td>df</td>
<td>45</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 2 shows an excellent KMO value of 0.848 as it reaches the suggested value of 0.6 (Hoque and Awang, 2016; Awang 2012). In addition, Bartlett's Test's significance value in Table 2 is 0.000, which is less than 0.05 in meeting the required significance value (Hoque, Siddiqui, Awang, 2018e; Hoque, Siddiqui, Awang, & Baharu, 2018f; Hoque
and Awang, 2016; Awang, 2012). Therefore, the KMO valuation near 1.0 and the Bartlett's test significance near to 0.0 indicate that data is adequate and suitable to continue the reduction process (Hoque and Awang, 2016).

Table 3. Total variance explained for CA construct

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Loadings</th>
<th>Rotation Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative</td>
</tr>
<tr>
<td>1</td>
<td>5.231</td>
<td>52.310</td>
<td>52.310</td>
</tr>
<tr>
<td>2</td>
<td>1.726</td>
<td>17.255</td>
<td>69.565</td>
</tr>
<tr>
<td>4</td>
<td>.454</td>
<td>4.535</td>
<td>84.875</td>
</tr>
<tr>
<td>5</td>
<td>.380</td>
<td>3.797</td>
<td>88.672</td>
</tr>
<tr>
<td>6</td>
<td>.300</td>
<td>2.996</td>
<td>91.669</td>
</tr>
<tr>
<td>7</td>
<td>.263</td>
<td>2.628</td>
<td>94.297</td>
</tr>
<tr>
<td>8</td>
<td>.227</td>
<td>2.269</td>
<td>96.565</td>
</tr>
<tr>
<td>9</td>
<td>.189</td>
<td>1.889</td>
<td>98.455</td>
</tr>
<tr>
<td>10</td>
<td>.155</td>
<td>1.545</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

The output shows that the EFA obtained three CA construction parts as they exceed the suggested quality of 1 or more (Hoque and Awang, 2016; Awang, 2012) as shown in Table 3. Component 1's Eigenvalue is 5.231, component number 2's Eigenvalue is 1.726, and component number 3's Eigenvalue is 1.077. This shows that the construct is divided into three components for further evaluation (Hoque and Awang, 2016). The above table also indicates a total variance explained is 80.340 percent.

Table 4. Rotated component matrix of CA construct

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>DP1</td>
<td>.859</td>
</tr>
<tr>
<td>DP2</td>
<td>.887</td>
</tr>
<tr>
<td>DP3</td>
<td>.756</td>
</tr>
<tr>
<td>DP4</td>
<td>.862</td>
</tr>
<tr>
<td>CL1</td>
<td>.853</td>
</tr>
<tr>
<td>CL2</td>
<td>.840</td>
</tr>
<tr>
<td>CL3</td>
<td>.867</td>
</tr>
<tr>
<td>QP1</td>
<td>.878</td>
</tr>
<tr>
<td>QP2</td>
<td>.811</td>
</tr>
<tr>
<td>QP3</td>
<td>.802</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Table 4 demonstrates that three dimensions or components have been obtained from the EFA method and all 10 items will be maintained for further research with a factor loading value is 0.6 or higher (Salam & Hoque, 2019; Hoque et al., 2017a; Hoque et al., 2017b; Afthanorhan et al., 2017; Hoque and Awang, 2016a; Hoque and Awang, 2016b; Awang, 2015a). Therefore, under three dimensions of CA construct 10 items will be considered for further analysis.

4.1 Reliability Analysis for the Measuring Items

The Cronbach’s Alpha value is exercised in this research to calculate the reliability of the items. Therefore, Kerlinger and Lee (2000) proposed that for valid internal reliability, the Cronbach’s Alpha value should be 0.5 or more. Hoque et al. (2017) Hoque and Awang (2016); Awang (2012); Hair (1998); and Nunnally (1997, 1978) proposed that Cronbach’s Alpha of 0.6 or greater ensure a reliable measure of internal consistency, while a result of 0.70 specified that the tool had a high standard of quality regarded in this research.

<table>
<thead>
<tr>
<th>Component</th>
<th>Number of items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td>4</td>
<td>0.916</td>
</tr>
<tr>
<td>Component 2</td>
<td>3</td>
<td>0.927</td>
</tr>
<tr>
<td>Component 3</td>
<td>3</td>
<td>0.934</td>
</tr>
</tbody>
</table>

As shown in Table 5, CA construct has a maximum of 10 items. However, component one has 4 items, component two has 3 items, and component three has 3 items. For each component, the Cronbach’s Alpha is calculated and has a high reliability standard for component 1, component 2, and component 3 as 0.916, 0.927, and 0.934 respectively. Consequently, the findings indicate that all reliability measures for CA's three components exceed the necessary and suggested amount of 0.7 or more (Salam & Hoque, 2019; Hoque et al., 2017; Hoque and Awang, 2016a; Hoque and Awang, 2016b; Awang, 2012; Hair, 1998; and Nunnally, 1997; 1978).

As a result, the extracted component with their respective items as shown in Table 5 are reliable and appropriate to measure the CA construct. Therefore, the study could employ those items for data collection in the field study.

4.2 Main Study Method: Final Validation of the CA Instrument

The main study's aim was to show the ultimate construct validity and nomological validity of a construct. Convergent validity, construct validity as well as composite reliability have been verified using SEM that also guarantees nomological validity of the CA structure.

4.3 Sample and Data Collection for Main Study

The final version of the survey tool was circulated through the postal mail system to the owners of 719 SMEs in Jordan for this academic research. A sum of 396 participants replied to the survey questionnaire after eight months, providing a response rate of 55.08 percent, and after removing unfinished studies, 384 completed responses were obtained from owners of various SMEs in Jordan that were used in the main research assessment.

5. Results of the Main Study

Respondents consisted of 67% male and 33% female in this study. Their average age was 35 years and for a median of 5 years the companies were in service. 69% of firms had ten or fewer permanent employees and 19% had no other employees than themselves and almost 57% had a university degree.
Table 6. Items description, internal reliability, composite reliability and convergent validity

<table>
<thead>
<tr>
<th>Construct &amp; Dimensions</th>
<th>Dimensions &amp; Items</th>
<th>Item Loading</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability (CR) (above 0.6)</th>
<th>Average Extracted Variance (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive Advantage (CA)</td>
<td>CL</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differentiation of Product (DP)</td>
<td>DP</td>
<td>.72</td>
<td>.929</td>
<td>.849</td>
<td>.655</td>
</tr>
<tr>
<td></td>
<td>QP</td>
<td>.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Leadership (CL)</td>
<td>DP1</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DP2</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DP3</td>
<td>.87</td>
<td>.917</td>
<td>.890</td>
<td>.669</td>
</tr>
<tr>
<td></td>
<td>DP4</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Product (QP)</td>
<td>CL1</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CL2</td>
<td>.88</td>
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<td>CL3</td>
<td>.88</td>
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<tr>
<td></td>
<td>QP2</td>
<td>.92</td>
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</tr>
<tr>
<td></td>
<td>QP3</td>
<td>.84</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Factor charging scores for all three-dimensional products consisting of competitive advantage structure together with Cronbach Alpha, CR and AVE for each dimension of the CA structure as shown in Table 6 indicating latent construction (i.e. CA) have reached the necessary amount for Unidimensionality; Convergent Validity, Internal Reliability, and Construct Reliability. Nomological validity was determined by checking the structural model after establishing the construct's validity and reliability. P-value=0.00; RMSEA=.032; GFI=.972; IFI=.995; CFI=.995; TLI=.993; NFI=.980; RFI=.971; ChiSq/df=1.300. In the model, there were statistically significant (p<.001) positive paths in each path and Path coefficients (i.e.β) scores varied from .749 to .936, supporting the nomological value of the CA scale.

Figure 2. Competitive advantage measurement items and components factor loading in SEM
6. Conclusion

This research verified the fresh CA instrument's accuracy and legitimacy. Validity of the construct was verified through the achievement of fitness indexes. Nomological value was verified using government sample information to evaluate an SEM system consisting of variable background and result. As stated, we discovered important beneficial interactions between the preceding, competitive benefit, and factors of effects that support the nomological validity of the fresh CA scale. With a domestic sample of SMEs ' market benefit in Jordan, the same procedures for analyzing reliability and construct validity were conducted and verified.

This study confirmed the reliability and validity of the new CA instrument. Validity of the construction was verified through the accomplishment of fitness indexes. Nomological value was verified using government sample data to evaluate an SEM model consisting of variable perspective and consequence. As stated, we discovered important beneficial interactions between the preceding, competitive benefit, and factors of effects that support the nomological validity of the new CA scale. With a national sample of SMEs' competitive advantage in Jordan, the same procedures for testing reliability and construct validity were conducted and verified. With a national sample of SMEs' competitive advantage in Jordan, the same procedures for testing reliability and construct validity were conducted and verified.

The nomological validity of the CA scale has been verified; all statistically significant values of the SEM design route (p<.001). Based on previous appropriate literature, this research attempted and effectively developed the Competitive Advantage Dimensions (i.e. Product Differentiation, Cost Leadership, and Product Quality). In addition, it is also evident that CA is a multi-dimensional building. The current study therefore adds to the development of CA studies, especially in the framework of SMEs.

The current research also assured that the latest CA tool is internally coherent, multi-dimensional, and sample-wide robust by requiring instrument creation and validation processes. Thus, the present competitive advantage (CA) measuring tool will assist potential scientists conduct further studies on the notion of SME business and also assist minimize the study gap of quantitative analysis on the idea of competitive advantage.

References


