# The impact of innovation capabilities on export performance of firms

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## Abstract

According to the importance of innovation capabilities on company’s performance base on recent studies in the past, two main dimensions of innovation capabilities include effective and operational capabilities have been recognized. Effective innovation capabilities include resources allocating, organizational, strategic, culture and learning capabilities and operational innovation capabilities include manufacturing, marketing and R & D capabilities. In this paper food export companies surveyed were chosen because this industry is biased towards innovation and was diagnosed fairly competitive. The model of this article is based on a review of past research studies and from the combination of them. Statistical population of this article includes experts, high experts and managers of companies which by using the formula for sample size in limited population about 340 questionnaires for obtaining the opinions of them were distributed. In this study we have used the Spss and Lisrel softwares. Validity and reliability of research variables by using confirmatory factor analysis and Cronbach's alpha were evaluated. Then, by using structural equation modeling statistical in Lisrel software, analysis was conducted on the premises of the primary and secondary hypotheses. As a result the main relationship between effective and operational capabilities and export performance was approved and it was demonstrated that the impact of operational innovation capabilities on export performance is more than effective innovation capabilities. Also resources allocating, organizational, culture and learning capabilities from the effective innovation capabilities, and manufacturing, marketing capabilities from the operational innovation capabilities have positive effects on export performance.

**Keywords:** Innovation capabilities, Resources allocating capabilities, Organizational capabilities, Strategic capabilities, Management capabilities, Culture capabilities, Learning capabilities, Manufacturing capabilities, Marketing capabilities, R & D capabilities, Export performance

## 1. Introduction

The most common way for a company to begin marketing activities in other countries is exporting. One of the main reasons for this is that the exports in comparison with other forms of internationalization require fewer resources. Different countries encourage companies to export because this activity is important, increased employment in the country, developed the competitive situation and improved the current earnings. Due to competitive pressures and interesting in development, companies make great efforts for increasing exports (Ziliang Deng et al., 2013). Increasing in food exports as one of the non-oil exports because of needing to exit from single product economy, entering the global economy, using potential of country in food productions, joining in WTO, diversification in exports is one of the country’s economic development needs. Also today, innovation as a key factor for success in competitive and dynamic environments is known and finding an industry without innovation is not possible. Success in innovation and business achievements, including performance improvement is not possible and depends on the application of innovation capabilities in the industries and companies (Alegre et al., 2011). According to the Kiernan (1996), innovation represents today’s competitive advantage, supported by strong mainstream capabilities in quality, efficiency, speed and flexibility. Innovation can help firms play a dominant role in shaping the future of their industries. High performing innovators are able to maintain a giant juggling act of capabilities, and consistently bring new high quality products to the market faster, more frequently and at a lower cost than competitors. Moreover, these firms use process and systems innovation as a way of further improving their products and adding value to customers. This combination creates a dynamic and sustainable strategic position making the organization a constantly moving target to competitors (Benn Lawson et al., 2011). The aim of this study is to explore the relationship between innovation capabilities and export performance and further to find the most influential innovative
determinants in food exporting firms. The paper is organized as follows: The first section summarizes the relevant literature and explains the derivation of the two main innovation capabilities. The methodology and findings of the field study on a sample of 340 questioners in food industries are presented in the next section.

2. Literature Review and Hypotheses

2.1. Innovation capabilities: Adler and Shenbar (1990) defined innovation capabilities as: (1) the capacity of developing new products satisfying market needs; (2) the capacity of applying appropriate process technologies to produce these new products; (3) the capacity of developing and adopting new products and processing technologies to satisfy the future needs; and (4) the capacity of responding to accidental technology activities and unexpected opportunities created by competitors. An innovation capability is therefore defined as the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders. Innovation capability itself is not a separately identifiable construct. The capability is composed of reinforcing practices and processes within the firm. These processes are a key mechanism for stimulating, measuring and reinforcing innovation (Benn Lawson et al, 2011). Kanter (1989) argued that organizations are most effective where the different resource needs of the “mainstream” and “new stream” are recognized and their management largely autonomous. Mainstream and new stream mean capabilities and innovation respectively. Conceptualization of Kanter’s model showed innovation capability.

2.2. Innovation capabilities models: the most important factors in innovation that has been introduced by Ben Lassen and Danny Samson in 2001 are vision and strategy, harnessing the competence base, organizational intelligence, creativity and idea management, organizational structure & systems, culture and climate and management of technology. The research results in the paper of Guan and Ma (2003) implied that the supplementary innovation assets (learning, organizational, resource allocating and strategy planning) not only make it possible for core innovation assets (a set of R&D, manufacturing and marketing) to form and operate effectively, but also they become dominant in determining the export performance of firms. They referred the supplementary innovation assets not only enable a firm’s technology assets to permeate into the entire competency integration, but also make it possible for a firm to acquire sustainable international competitiveness. Therefore, firms should emphasize the supplementary innovation assets, and consider other influential factors along with interior technological resources when strategizing for export competitiveness. Although the concept of supplementary innovation assets defined by Guan and Ma differs from the concepts proposed by Teece (1986), Adler and Shenbar (1990) and Chiesa et al. (1998), the supplementary innovation assets, the organization assets, the complementary assets and the enabling process all refer to the assets that can support and harmonize the innovation process (planning, resource, organization, culture, learning, and etc.) successfully. In studies that has done by Ibrahim et al. (2009), Factors affecting innovation has been introduced such as knowledge and competencies, organizational support, organizational structure, resources, infrastructure, strategies and regulation and leadership. In studies that has done by Ibarra et al. (2009), Factors affecting innovation has been introduced such as actors, physical resources, culture, and structure and system. In studies that has done by Togar et al. (2012), Factors affecting innovation has been introduced such as human resource competencies, decision making, idea management and organization intelligence. In paper of Togar et al., it is found that innovation capability is determined primarily by the quality of human resources who are capable to learn continuously and to follow the changing trend in technology. Dey (1994) referred to study about the role of organizational culture and capabilities on export performance. Also some of researchers referred to integrate technology in companies through the integration of new technologies, sharing technology skills among various functional groups (marketing, R & D, production, etc.) and development of concurrent engineering (Liliya, 2011). In a paper Ipek Kocoglu (2012), referred learning. Manufacturing and R&D capabilities are the base of systematic innovation strategy through establishing appropriate routines.

2.3. Definitions based on literature review

2.3.1. Resource exploiting capabilities: Resources of a firm are attractive issues for researchers. Andrews (1980) looks at resources in the conventional concept of strategy, concerning how the resources of a firm can improve its strengths and weaknesses. The resources of the firm include land, equipment, labor (from top managers and
employees’ capabilities and knowledge), and capital (organizational, tangible, and intangible), in which these categories may be subdivided as far as it is useful for the problem at hand (Penrose, 1995). The resources of the firm refer to “all the assets, capabilities, organizational processes firm attributes, information, and knowledge, which are controlled by the firms that enable them to conceive and implement strategies that improve efficiency and effectiveness” (Barney, 1991). The resource exploiting capability represents the firm’s ability to mobilize and expand its resources (Guan et al, 2003).

2.3.2. Organizational capabilities: According to Leonard Barton (1992) organizational capabilities are the Knowledge set that distinguishes and provide competitive advantage. This suggests that pursuit of greater organizational Knowledge is a central motivator for organizations seeking to develop their organizational capabilitis.In other definition organizational capabilities are set of knowledge-based organization that support competitive advantage through innovation and flexibility gained by building alignment between the strategic intent, the organizational structure and expertise of the workforce. Organizational capabilities include three areas of strategic orientation, organizational structure and individual knowledge. Interaction between three areas that referred above specifies empowered systems and processes that cooperation and alignment between them are created (B.bus, 2006). According to Leonard (1995) core organizational capabilities consist of four main building blocks: people’s skills, knowledge embedded in physical systems, managerial systems and organizational models that support and reinforce the growth of knowledge as well as values that encourage the accumulation of different kinds of knowledge.

2.3.3. Strategic capabilities: Strategic capabilities refer to the ability to develop soundly based strategies (at a range of different levels), and the ability to apply strategic thinking and manage an organization strategically (Stephen, 2007). The Components of Strategic capabilities are financial, human and physical (Johnson et al, 2011). A good strategy should lead to better use of scarce resources because it leads to greater clarity about relative priorities and, thus, better decisions about resource allocation. Improved capacity to deal with short term crises as well as future challenges. Because clarity about goals means responses to short term crises can be taken with longer term objectives in mind. Better outcomes, not only because clarity about goals allows a focus on the best means of achieving them, but because good strategy is analytically rigorous and evidence based (Stephen, 2007).

2.3.4. Management capabilities: Management capabilities refer to the application of management competencies within an organization to achieve desired outcomes. Excellence in management capability is an integral marker of strong organizational performance. Management ensures the organization is strongly goal, performance, and achievement focused. Management demonstrates the ability and attitude to lead the achievement of challenging goals and change. Management balances risk with achievement, not risk avoidance (i.e. management is not risk averse) (Jim Walker, 2012). Management determinants subjectively can be categorized into two main categories: attitudinal and skill based characteristics. Attitudinal characteristics are further classified into management international orientation, export commitment and support, customer orientation, perception toward competitiveness, perceptions about export advantage and export barrier. On the other hand, skill based characteristics are further classified into export experience, foreign language proficiency, and education level of a manager (Moghaddam, 2012).

2.3.5. Culture capabilities: To Hofstede, culture is “the collective programming of the mind which distinguishes the members of one human group from another” (Hofstede, 1980). Celebrated anthropologist, Clifford Geertz, defined culture as “an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which [individuals] communicate, perpetuate, and develop their knowledge about and attitudes toward life” (Geertz, 1973). Organizational culture is an environment variable that impact on all organization members in different levels. Hence a good understanding of culture structure is important for having effective management and controlling organization. Members of the organization train new member’s written and unwritten culture of the organization for solving the problems relate to external conformity (For example, the best way to participate in global markets) and internal integration (The best way to coordinate and strengthen the processes within an organization). Therefore with a necessary capacity, changing organizational culture, views, emotions of members are became possible (Lawson Robert & zeng Chen, 2002). Some features of organizational culture are innovation and risk taking, attention to details, members of the organization, outcomes, ambitions and stability (Asgarian, 2009).
2.3.6. **Learning capabilities**: Learning capabilities refer to the ability to initiate, develop, strengthen and utilize the learning that is necessary for an organization (Phapruke et al., 2008). Elgar & Chiva (2008) defined organizational learning as a process that creates any changes in models that related to learning. It lead to improved performance in organization and maintain it. They defined learning capabilities as a set of tangible and intangible resources or skills, that organization uses them to reach a new competitive advantage. From the previous definition, this capabilities include experimentation, risk taking, interaction with the external environment, discussion and participatory decision-making. Also some of researchers like Chiva and Gomez defined the items such as experimentation, managerial commitment and empowerment, risk taking, open space, interact with external environment, knowledge transfer and integration as the indicators of measuring organizational learning capability (Tohidi et al., 2012).

2.3.7. **Manufacturing capabilities**: There is little coherence in the definition of manufacturing capability in the literature, where for example Cleveland et al. (1989) define manufacturing competence as a capability that enables manufacturers to carry out a product- or market-specific business strategy. Some authors have not bothered to clearly define it at all, but assume that factors such as flexibility or lead time are competencies (e.g., Vickery et al., 1993), whereas others call these capabilities (e.g., Flynn and Flynn, 2004). Manufacturing capabilities are thus a combination of different manufacturing resources, both tangible and intangible. Where the resources needed for this capability are advanced machinery, personnel skilled at using them, and appropriate raw materials. The capability can be utilized both individually and in bundles (Robin, 2012). Also the set of practices, resources, routines used ultimately determine the operating characteristics of the manufacturing system, i.e., the manufacturing capabilities (Tan et al., 2006). Manufacturing capabilities are characterized by the set of practices in use. The capabilities are formed by the objectives for the manufacturing system paired with the history of decisions in manufacturing related issues (Größler and Grübner, 2006). Also, dependent on the set of capabilities inherent in the system at hand different performance levels can be achieved, i.e., capabilities are the basis for operational performance. Thus, manufacturing capabilities can be viewed as the linkage between manufacturing strategy content and manufacturing performance. In the manufacturing strategy literature, capabilities are often conceptualized as a business unit’s intended or realized competitive performance or operational strengths and are therefore assessed using measures of operational performance, which typically includes cost, quality, flexibility, and delivery measures (Mattias, 2007).

2.3.8. **R&D capabilities**: R&D capabilities are referred to in the literature as “the processes that enable firms to invent new technology and convert existing technology to develop new products and services. Therefore, R&D capabilities depend on the routines that help a firm develop new technical knowledge, combine it with existing technology, and design superior products and services.” (Krasnikov & Jayachandran, 2008) Following Lefebvre et al. (1999; 1998), R&D-related capabilities of organizations can be divided into five groups, namely technological knowledge intensity, R&D strategies, R&D collaboration, acquisition of knowledge from various sources of information and management of technology practices. Also Intellectual Property (IP) management adds to this list, based on other literature (Gassmann & Keupp, 2007; Pisano & Teece, 2007; Kitching & Blackburn, 1998). In other definition R&D capability helps the firm to embrace many novel technologies and approaches when developing new technological assets. Manufacturing capability refers to the ability to transform R&D results into products, which meet market needs, in accordance with design request and can also be manufactured in batches (Guan et al., 2003).

3.9. **Marketing capabilities**: Over the last decade, a growing number of studies have highlighted the role of marketing capabilities in the attainment of a firm’s competitive advantage. Leveraging on the resource based view of the firm and on the capability-based view of the firm, marketing researchers demonstrated that marketing resources and capabilities can contribute to the creation of a competitive advantage because they may be rare, difficult to achieve, difficult to duplicate and their value can be appropriated by the organization (Paolo et al., 2006). Marketing capabilities have been defined as “the integrative processes designed to apply collective knowledge, skills and resources of the firm to market-related needs of the business, enabling the business to add value to its goods and services, adapt to market conditions, take advantage of market opportunities and meet competitive threats” (Vorhies, 1998). However, the literature also suggests the existence of different classifications of marketing capabilities. All of them share the assumption that these capabilities are exercised through specific marketing processes. The most popular one has been proposed by Day (1994) who
distinguishes between market sensing and customer-linking capabilities: the first referring to the ability of a company to identify customers' needs, the second referring to the ability to build relationship with them. Although it has been widely recognized that the development of marketing capabilities requires the joint effort of Marketing and Sales department. The marketing department is usually focused on customer marketing, brand management, advertising management, marketing research; while the sales department is focused on trade marketing, trade negotiations, channel management (Paolo et al, 2006).

2.4. The relationship between innovation capabilities and export performance

In the international literature, there are various models that describe the export behavior as a mix between the numerous variables (Bonaccorsi, 1992). They can be roughly divided into structural factors, management factors of the firm and incentives and obstacles in the process of internationalization. The structural factors include size; age; management systems (JIT, TQM, CE), organization and technology profiles; R&D intensity etc.Hirsch and Bijoui’s study (1985) considered the relationship between R&D expenditure and export behavior for 111 Israeli firms. They concluded that innovations are an important factor in explaining export performance. Mandy’s study (2009) considered the relationship between distinctive capabilities (such as general administration, production/operations, engineering/r&d, marketing, Finance and etc.), strategy types, environment and the export performance of SMEs in the Malaysian manufacturing sectors. The result shows that there is not a significant relationship between distinctive capabilities and the performance. So when globalization and international competition are intensified, some of the researchers believe technology becomes more central on export performance of companies in the global marketplace Basile (2001), Cassimiss & Golovko (2011), Girma, Gorg, & Hanley (2008). Although the evidence indicates that innovation is the potential of enhancing export performance but research shows that there are significant differences in the effects of innovation (Jingtao et al, 2013). Due to various types of research about the impact of innovation capabilities and export performance.In this study we will point out the innovation capability-related components that are significant determinants in the firms’ export competitiveness.

2.5. Export performance: Export performance is the extent of firm’s targets (include strategic objectives and financial targets) that can be happened through design and implementation of export marketing strategies for exporting a product. The study of export performance goes back to 1960s (Moshabaki, khademi, 2012). The export performance indicators used in the studies reviewed can be classified into objective and subjective measures. Indicators that are based mainly on absolute values such as export intensity, export sales volume, and export market share, among others, are called objective measures. Meanwhile, indicators that measure the perceptual or attitudinal performance such as perceived export success and satisfaction with export sales are considered to be subjective measures of performance (Carlos M. P. Sousa, 2004).In this study we use export sales growth, export sales volume, export profit share and satisfaction of performance as export performance measures.

2.6. Development of hypotheses

Base on the above mentioned theoretical and empirical findings in the literature, the following hypotheses are proposed:

H1. Effective innovation capabilities have significant impact on export performance.
    H1a. Resources allocating capabilities have significant impact on export performance.
    H1b. Organizational capabilities have significant impact on export performance.
    H1c. Strategic capabilities have significant impact on export performance.
    H1d. Management capabilities have significant impact on export performance.
    H1e. Culture capabilities have significant impact on export performance.
    H1f. Learning capabilities have significant impact on export performance.

H2. Operational innovation capabilities have significant impact on export performance.
H2a. Manufacturing capabilities have significant impact on export performance.
H2b. Marketing capabilities have significant impact on export performance.
H2c. R & D capabilities have significant impact on export performance.

3. Theoretical framework

According to reviewing the literature and different models of innovation capabilities, this study develops a conceptual model about two main dimensions of innovation capabilities includes effective and operational capabilities. Effective innovation capabilities include resources allocating, organizational, strategic, culture and learning capabilities and operational innovation capabilities include manufacturing, marketing and R & D capabilities.

![Conceptual model](image)

4. Research Methodology

To adjust, classification, statistical calculations, testing research hypotheses, we use Lisrel and Spss softwares. Statistical population of this article includes experts, high experts and managers of food exporting companies which by using the formula for sample size in limited society about 340 questionnaires for obtaining the opinions of them was distributed.

4.1. Analysis

To determine reliabilities of variables we use Cronbach’s alpha. Cronbach’s alpha in Table 1 is a measurement of the Scale reliabilities. The values of Cronbach’s alpha exist in a wide range. Also Table 1 summarizes the data according to the innovation capabilities dimensions. It provides descriptive statistics. This table shows that all of the variables’ mean relate to effective innovation capabilities and operational innovation capabilities are higher than 3.
Table 1. Descriptive statistics and Pearson correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>α</th>
<th>Mean</th>
<th>Std.deviation</th>
<th>Pearson correlation</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective innovation capabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources capabilities</td>
<td>%73</td>
<td>%3.91</td>
<td>%57</td>
<td>0.269</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Organizational capabilities</td>
<td>%68</td>
<td>%3.87</td>
<td>%76</td>
<td>0.358</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Strategic capabilities</td>
<td>%72</td>
<td>%3.54</td>
<td>%63</td>
<td>0.110</td>
<td>P=0.047</td>
</tr>
<tr>
<td>Management capabilities</td>
<td>%83</td>
<td>%3.34</td>
<td>%70</td>
<td>0.344</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Culture capabilities</td>
<td>%82</td>
<td>%3.59</td>
<td>%39</td>
<td>0.333</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Learning capabilities</td>
<td>%86</td>
<td>%3.54</td>
<td>%57</td>
<td>0.021</td>
<td>P=0.700</td>
</tr>
<tr>
<td>Operational innovation capabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing capabilities</td>
<td>%72</td>
<td>%3.78</td>
<td>%61</td>
<td>0.331</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Marketing capabilities</td>
<td>%73</td>
<td>%3.60</td>
<td>%74</td>
<td>0.365</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>R &amp; D capabilities</td>
<td>%79</td>
<td>%3.59</td>
<td>%57</td>
<td>0.160</td>
<td>P=0.004</td>
</tr>
<tr>
<td>Export performance</td>
<td>%81</td>
<td>3.72%</td>
<td>%77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that effective innovation capabilities dimensions such as resources, organizational, management and culture are significantly and positively correlated with the export performance with exceptions in strategic and learning sectors. Also operational innovation capabilities dimensions such as manufacturing and marketing are significantly and positively correlated with the export performance with exceptions in R & D sector. The correlation coefficient of resources, organizational, management, culture, manufacturing and marketing capabilities are significant and positive at 1%. In conclusion, there is interdependency between the total improvement of innovation capabilities and firms’ export performance.

4.2 Research Model Testing

Figure 2 shows the research model in standardized coefficients. This figure shows that the two variables include effective innovation capabilities and operational innovation capabilities with export performance has a significant relationship (p<0.05). At level confidence of %95, effective innovation capabilities have a significant effect on export performance and standardized coefficient is %0.25 and also relation is positive. At level confidence of %99, operational innovation capabilities have a significant effect on export performance and standardized coefficient is %0.41 and also relation is positive. In conclusion, results confirm the research model. According to regression equation in the next line; we conclude the impact of operational innovation capabilities on export performance is more than effective innovation capabilities.

\[ Y = \bar{a} + 0.25(\text{EC}) + 0.41(\text{OC}), \bar{a} = \text{Fixed Amount, } E = \text{Effective Capabilities= Operational Capabilities} \]

Figure 3 shows model at significant coefficients level (t-value). In connection with the t-test, where t-value is greater than 1.96 means that the correlation is significant. In Figure 3, t-value of effective innovation capabilities is equal to 2.25 that is greater than 1.96. So we can conclude that the relationship between the variables of effective innovation capabilities on export performance is significant (p< 0.05). Also t-value of operational innovation capabilities is equal to 3.12 that is greater than 1.96. So we can conclude that the relationship between the variables of operational innovation capabilities on export performance is significant (p< 0.01).
4.3. Fitting Indexes

In addition to assessing the fit indexes, it can be concluded all of fit indexes are acceptable and it shows the data has a good fitting with model. (Table 2)

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>P</th>
<th>df</th>
<th>X2/df</th>
<th>RMSEA</th>
<th>GFI</th>
<th>PGFI</th>
<th>CFI</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>174.05</td>
<td>P&lt; .05</td>
<td>62</td>
<td>2.80</td>
<td>0.071</td>
<td>0.95</td>
<td>0.21</td>
<td>0.91</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Table 2. Fitting indexes of research model

4.4. The model of effective innovation capabilities components

Figure 4 shows, the impact of innovation effective capabilities components on export performance. The results show that the four components of innovation effective capabilities such as resources, organizational, management and culture have a significant relationship with export performance (p<0.05) this relations at level confidence of %95 are positive and acceptable. The comparing of standardized coefficients indicate that the
The greatest impact on the export performance is related to organizational capabilities with a rate of 50%. Strategic and learning capabilities do not have any impact on export performance (p>0.05).

4.5. The model of operational innovation capabilities components

Figure 5 shows that the impact of operational innovation capabilities components on export performance. The results show that manufacturing capability has a significant relationship with export performance. This relation at level confidence of 99% is positive and acceptable. With comparing of standardized coefficients indicate that the greatest impact on the export performance is related to manufacturing capabilities with a rate of 36%. Marketing capability has a significant relationship with export performance. This relation at level confidence of 95% is positive and acceptable (p<0.05). The standardized coefficient rate of marketing capability is 26%. Also, the results show that R&D capabilities do not have any impact on export performance (p>0.05).

4.6. The summary of research hypotheses test
5. Research result

H1: In food exporting companies, effective innovation capabilities have significant impact on export performance. To test this hypothesis, the following sub-hypotheses were examined:

H1a. Resources allocating capabilities have significant impact on export performance in food exporting companies. 
This hypothesis was supported. The confirmation of this hypothesis suggests that companies consider to resources that is a competitive advantage for the organization, particularly in the areas of exporting. From the resource-based view perspective, innovation does not come simply from scanning the external environment for market opportunities, but from looking inside and build on the resource endowment and core competencies of the organization. Organizational resources and capabilities are taken to offer the necessary input for the development and exploitation of the firm’s innovation activities (Gregory, 2000). To achieve a sustainable advantage, resources should be valuable, inimitable, renewable and scarce (Barney, 1991). Past research shows that resources cause innovation, learning, entrepreneurship and response to environmental conditions and thus improving the organizational performance (Konstantinos, 2000).

H1b. Organizational capabilities have significant impact on export performance in food exporting companies. This hypothesis was supported. Positive effect on the export performance of firm’s organizational capabilities in studies of Majidah Hassan, Grace McCarthy(2011) and J. Guan, N.Ma(2003) is seen. The confirmation of this hypothesis suggests that companies consider establishing appropriate structures for dealing with resources and access to new resources. Also there are coordination between various parts. Because of these organizations are planned and programmed in a proper way, persons have skills and capabilities of their career.

H1c. Strategic capabilities have significant impact on export performance in food exporting companies. This hypothesis was not supported. Companies should consider four key criteria. These criteria can be assessed in terms of providing a basis for achieving sustainable competitive advantage are value, rarity, inimitability and non-substitutability. Strategic capabilities are of value when they take advantage of opportunities and neutralize threats, provide value to customers, provide potential competitive advantage and at a cost that allows an organization to realize acceptable levels of return. Rare capabilities are those possessed uniquely by one organization or by a few others only (E.g. a company may have patented products, have supremely talented people or a powerful brand). Rarity could be temporary (E.g: Patents expire, key individuals can leave or brands can be de-valued by adverse publicity). Inimitable capabilities are those that competitors find difficult to imitate or obtain. Competitive advantage can be built on unique resources (a key individual or IT system) but these

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Coefficients</th>
<th>Significant level</th>
<th>Result of hypotheses: relation with Export performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources allocating capabilities</td>
<td>0.22</td>
<td>P&lt;0.05</td>
<td>Supported</td>
</tr>
<tr>
<td>Organizational capabilities</td>
<td>0.50</td>
<td>P&lt;0.01</td>
<td>Supported</td>
</tr>
<tr>
<td>Strategic capabilities</td>
<td>0.10</td>
<td>P&gt;0.05</td>
<td>Not supported</td>
</tr>
<tr>
<td>Management capabilities</td>
<td>0.41</td>
<td>P&lt;0.01</td>
<td>Supported</td>
</tr>
<tr>
<td>Culture capabilities</td>
<td>0.21</td>
<td>P&lt;0.05</td>
<td>Supported</td>
</tr>
<tr>
<td>Learning capabilities</td>
<td>0.07</td>
<td>P&gt;0.05</td>
<td>Not supported</td>
</tr>
<tr>
<td>Effective innovation capabilities</td>
<td>0.25</td>
<td>P&lt;0.05</td>
<td>Supported</td>
</tr>
<tr>
<td>Manufacturing capabilities</td>
<td>0.36</td>
<td>P&lt;0.01</td>
<td>Supported</td>
</tr>
<tr>
<td>Marketing capabilities</td>
<td>0.26</td>
<td>P&lt;0.05</td>
<td>Supported</td>
</tr>
<tr>
<td>R &amp; D capabilities</td>
<td>0.09</td>
<td>P&gt;0.05</td>
<td>Not supported</td>
</tr>
<tr>
<td>Operational innovation capabilities</td>
<td>0.41</td>
<td>P&lt;0.01</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 3. The result of research hypotheses test
may not be sustainable (key people leave or others acquire the same systems). Sustainable advantage is more often found in competences (the way resources are managed, developed and deployed) and the way competences are linked together and integrated. Competitive advantage may not be sustainable if there is a threat of substitution. Product or service substitution from a different industry/market. For example, postal services partly substituted by e-mail. Competence substitution. For example, a skill substituted by expert systems or IT solutions (Barney 1991). The companies should increase these criteria for improving export performance.

H1d. Management capabilities have significant impact on export performance in food exporting companies. This hypothesis was supported. As the literature shows, different management capabilities and indicators on export performance and business operations have positive effects. In this paper the positive effect of this relationship is confirmed.

H1e. Culture capabilities have significant impact on export performance in food exporting companies. This hypothesis was supported. The confirmation of this relationship suggests that firms have compatible culture within the organization are more successful in export. Culture in solving problems, coordination and improving processes within an organization is very effective.

H1f. Learning capabilities have significant impact on export performance in food exporting companies. This hypothesis was not supported. The analysis of organizational learning has become an increasingly important study area over recent years. It is one of the reasons for growing importance of learning in organizational concepts is fast changing environments, the need for innovation and human resource in the organization. Managers should develop capabilities of employees in learning, giving them authority in decision making, supporting new ideas, staff training; encourage them to risk taking and problem-solving. This dimension includes flexibility of managers, lack of resistance toward change; the importance of employee’s learning and their participation in decision-making. Organizations slowly respond to the environmental changes and this type of system can survive only in static environments. To keep pace with changing environments and creating new opportunities, organizations need activities to improve existing products and services, and creating innovation in the organization. Openness and interaction with external environment provide acquaintance to new ideas, learning from other’s experiences and modelling competitors and other organizations. Importance of openness and interact with the environment in organizational learning is to the degree that most researchers have mentioned it as one of the important parameters in the organizational learning capability. External environment implies factors which are not under the control of the organization, but indirectly have impact on the organization. It includes other companies, like competitors, economic systems, social systems, financial systems and legal systems. Environmental characteristics have played an important role in learning and organizations must have interaction with external environment if they tend to adapt to environmental changes in time (Hamid Tohidi et al, 2011). In general, in food exporting companies, effective innovation capabilities have significant impact on export performance.

H2. In food exporting companies, operational innovation capabilities have significant impact on export performance. To test this hypothesis, the following sub-hypotheses were examined:

H2a. Manufacturing capabilities have significant impact on export performance in food exporting companies. This hypothesis was supported. Manufacturing capabilities is insignificant because of its close association with quality, delivery, and cost. Ability to identify areas of improvements and also ability in integrating improvements with that of quality control and strategizing the manufacturing sector, and its ability in matching the process capabilities with the market requirements in a timely fashion are very important (Guan and Ma, 2003).

H2b. Marketing capabilities have significant impact on export performance in food exporting companies. This hypothesis was supported. The impact of marketing capabilities on export performance in studies of Leonidou, L. C., Katsikeas, C.S. and Samiee, S. (2002), Guan and Ma (2003), A. al-Aali, J-S. Lim, T. Khan, M. Khurshid, (2013) and Shaoming zou, Eric Fang, Shuming Zhao (2003) is confirmed. Marketing resources and capabilities, exercised through marketing processes, can be a significant contributing factor to a firm’s competitive advantage in global markets. Firms that enjoy superior marketing capabilities will be better placed.
to devote efforts to international marketing business and reap its benefits. Although recent export studies have shown positive relationships between marketing capabilities and export performance (A. al-Aali,J-S. Lim,T. Khan,M. Khurshid, 2013). In general, in food exporting companies, operational innovation capabilities have significant impact on export performance. The findings show the impact of operational innovation capabilities on export performance is more than effective innovation capabilities.

H2c. R&D capabilities have significant impact on export performance in food exporting companies. This hypothesis was not supported. The impact of R&D capabilities on export performance in studies of Guan and Ma(2003), Lopez Rodriguez, J. and Garcia Rodriguez, R. (2005) and Panayiotis Ganotakis and James H. Love,(2010) is confirmed But in paper of Lance Eliot Brouthers, George Nakos, John Hadjimarcou, and Keith D. Brouthers(2009) is not supported. R&D capabilities are very insignificant in companies. The firms should invest in R&D because it is only one and a non-comprehensive determinant of success of a firm’s R&D efforts. The way a firm chooses to invest its R&D funds corresponds to its R&D strategies, the broad classic ones being basic research, applied research, product development, process development and improvement of existing products and processes. Collaboration with various network players is said to be one of the cornerstones of R&D capabilities. The extent of use of R&D information from various sources corresponds a critical capability and reflects the absorptive capacity of the firm. This is the ability to evaluate, assimilate and apply external and internal knowledge to commercial ends. Innovation can be understood as a process, in which an organization creates and defines problems and then actively develops new knowledge to solve them. Normally, the percentage of employees with technical and scientific backgrounds represents a good indicator of technological knowledge intensity and is viewed as a crucial R&D-related. IP protection and management and management of technology capabilities should be considered ( LiliyaAltshuler,2011).

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