The Role of Competitive Advantage in Mediating the Effect of Entrepreneurial Orientation and Knowledge Management toward Business Performance

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Abstract

This empirical research aims to determine the effect of entrepreneurial orientation and knowledge management on business performance with competitive advantage as intervening variable. The population in this research is small and medium enterprises in embroidery Aceh’s motifs in Banda Aceh City and Aceh Besar Regency. The sample selection is based on purposive sampling technique. Respondents in this research are small and medium enterprises manager of embroidery Aceh’s motifs which amounted to 257 respondents. The data required for this study are primary data and secondary data, primary data obtained by interviews and distributing questionnaires where each item ranked by methods Summated Likert Scale Rating scale measuring the interval with seven alternative answers. Data analysis used in this research is SPSS. To identify the role of mediating variable fully mediated or partially mediated, it can be implemented to refer to Baron and Kenny opinion (1986) in Ma’ruf (2005). The results of this study show that entrepreneurial orientation and knowledge management has a positive and significant relationship to business performance and competitive advantage partially mediate (partial mediation) effect between the entrepreneurial orientation, knowledge management and business performance. The finding from the study will help SME owner / managers in understanding and can provide empirical data provision benefits in improving the business performance of small embroidery industry with increased Competitive Advantage by growing the orientation attitude Entrepreneurship, and a good Knowledge Management

**Keywords:** entrepreneurial orientation, knowledge management, competitive advantage, business performance, SMEs

Introduction

Business performance shown by, Small and Medium Enterprises (SMEs) is still showing many limitations. This SMEs sector shows the contribution data on the economy is very dominant, so this phenomenon becomes interesting to conduct research and studied deeper because there is gap. The perceived gap is in spite of its many limitations at this time, SMEs have been able to show their contribution and identity as the main pillar of the nation’s economic support by contributing to the process of economic recovery of Indonesia.
The above conditions are strengthened by data from BPS (2015), the overall number of large business units (up to 99%); SMEs are only able to contribute less than 10% of total national business output. This indicates that there is inequality of performance and productivity between SMEs with large-scale business. Similarly, the condition of MSMEs in Aceh, because of weak performance and productivity of SMES is allegedly due to weak entrepreneurial character and not optimal managerial role in managing the business. So it can be stated that the above conditions show the business performance of SMEs in Aceh is still low.

According to Head of Department of Cooperatives and SMEs Aceh, Mulyadi, S.Pd.MM (2017), the number of SMEs in Aceh reached 75,520 units of employment that absorbed 169,141 workers. The development of SMEs by business sector in Aceh Province shown in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Sector</th>
<th>Micro Enterprises</th>
<th>Small Business Enterprises</th>
<th>Medium Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trading</td>
<td>30.254</td>
<td>13.425</td>
<td>1.289</td>
</tr>
<tr>
<td>2</td>
<td>Agriculture</td>
<td>1.651</td>
<td>425</td>
<td>47</td>
</tr>
<tr>
<td>3</td>
<td>Mining</td>
<td>122</td>
<td>204</td>
<td>59</td>
</tr>
<tr>
<td>4</td>
<td>Industry</td>
<td>18.983</td>
<td>4.939</td>
<td>207</td>
</tr>
<tr>
<td>5</td>
<td>Fishery</td>
<td>917</td>
<td>265</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Transportation</td>
<td>680</td>
<td>808</td>
<td>94</td>
</tr>
<tr>
<td>7</td>
<td>Livestock</td>
<td>922</td>
<td>192</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>53.529</td>
<td>20.258</td>
<td>1.733</td>
</tr>
</tbody>
</table>

Source: Department of Cooperatives and SMEs of Aceh Province, 2017.

Based on Table 1 above, it shows that the development of business sector of SMEs in Aceh province for the industrial sector ranks second after the trade sector. Industrial sectors, both micro, small and medium enterprises are in need of skilled and tenacious labor to improve their business performance, so considering these issues, these sectors will need to be developed in the future in terms of increasing the role of SMEs.

Based on data from Statistics Indonesia (2016), the type of Gross Regional Domestic Product (GRDP) according to its business field and the processing industry in 2015, and ranks in fifth position after agriculture, trade, government administration and transportation. Particularly for PDRB Aceh in Manufacturing Industry sector in 2011 showed Rp9,360 billion and in 2012 increased to Rp9,859 billion or increased by 5,331 percent, while in 2013 GDP decreased to Rp9,759 or decreased by 1,014 percent and in 2014 and 2015 PDRB continued to decline by Rp9,475 billion and Rp7,614 billion, respectively, or decreased by -2.910 percent and -19.641 percent respectively. The decline in GDP in Aceh, especially in the manufacturing sector shows that the performance of the regional economy in the industrial sector is still low and needs to be improved and empowered, so it can serve as a leading sector and play a bigger role in the regional economy in the future.
Among some Micros, Small and Medium Enterprises in Aceh, the business of embroidery motif Aceh as SMEs handicraft sector has its own characteristics that are very special, and consistent and it is a public institution or organization associated with entrepreneurship whose level of business performance is sufficiently highlighted in improving the economy of the handicraft industry sector in Aceh.

Based on data taken from some embroidery motif Aceh producers in Samahani, Kuta Malaka in Aceh Besar District, they admitted having difficulty obtaining raw materials since last two years. In addition, although the demand for their businesses increases but due to funds constrained, it can cause them cannot meet the demand. This is due to the limited information on how to obtain funds and the ability to make the proposal. Most small-scale enterprises run business without planning, control or evaluation of business activities.

Another problem faced is about the competitiveness of SMES entrepreneurs’ embroidery motifs itself, namely the competitiveness of SMEs to develop new ideas or innovation and creativity produced through their products and problem about processes and competitiveness of similar products from other provinces. The rapid flow of imported embroidery motifs clothes and difficulty to get young workers in creating new motives that fit the market demand is the prior problem that faced by UMKM embroidery motifs recently. The aim of this research is to identify the influence of entrepreneurial orientation and knowledge management and its impact of business performance through competitive advantage.

**Literature Review**

**Entrepreneurial Orientation and Business Performance**

The concept of entrepreneurship as an organizational orientation is first used by Miller (1983) which includes risk taking, innovative and proactive entrepreneurial behavior. Empirical studies have determined that entrepreneurial orientation is associated with firm performance (Covin, Green and Slevin, 2006; Rauch, Wiklund, Lumpkin, and Frese, 2009) and long-term survival of a company (Zhao, Li, Lee and Chen, 2011).


Some empirical studies have determined that entrepreneurial orientation is associated with firm performance (Covin, Green and Slevin, 2006; Rauch, Wiklund, Lumpkin, and Frese, 2009) and long-term survival of a company (Zhao, Li, Lee and Chen, 2011). The entrepreneurial orientation plays an important role in business success (Montoro – Sanchez and Soriano, 2011; Phan et al, 2009; Shimizu, 2011). Montoro - Sanchez and Soriano (2011) suggest that company performance is based directly on the entrepreneurial character of a business owner or management team. Zhao, Li, Lee and Chen (2011) provide support for a positive relationship between entrepreneurial orientation and company performance and suggest that entrepreneurship orientation should be treated as a criterion in measuring the long-term viability of a company. Similarly the literature confirms the significant
relationship between the Entrepreneurial Orientation and company performance (Wicklund, Patzelt and Shepherd, 2009). Based on this argument, the study proposes:

H1: Entrepreneurial Orientation has a significant effect on Business Performance.

Knowledge Management and Business Performance
Knowledge management is a process to optimize intellectual property that can be seen from the performance of employees in an organization for the benefit of the organization. Aliyu (2015) explains that knowledge management strategy is seen an important issues for small and medium firms and a policy tool for economic growth. His study reported a significant and positive relationship between the knowledge management and business performance of SMEs in Nigeria.

Nnabuife et al (2015) suggest that conclusions from this study that there is a positive relationship between knowledge identification and organizational performance. It also reveals that knowledge acquisition has a positive effect on organizational performance. In conclusion, knowledge is the key resource needed if an organization intends to operate at a level that is equal to no other, and organizational knowledge management is assumed to have a positive impact on organizational performance (Satyendra Singh et.al, 2006).

Nonaka and Takeuchi (1995) in Nasimi et.al., (2013) explains that "Knowledge management is the process through organization deals which generates a wealth of knowledge and intellectual capital" While other definitions state that knowledge management is a process or activity By creating, acquiring, capturing, sharing and using knowledge, wherever it is, to enhance learning and performance within the organization (Scarborough, S and Preston 1999 in Nasimi et al., 2013). Based on this argument, the study proposes:

H2: Knowledge Management has an effect on significant to Business Performance

Entrepreneurial Orientation, Competitive Advantage and Business Performance
Previous research has revealed that the level of entrepreneurial orientation is a distinguishing factor in the success or failure of business organizations. Successful entrepreneurs are more entrepreneurial oriented and this orientation is exemplified by their commitment to encouraging entrepreneurial behavior such as competitive, proactive, and organizational risk taking (Casillas, Moreno and Barbero, 2010; Messeghem, 2003; Miller, 1983; Stam and Elfring, 2008; Voss, Voss and Moorman, 2005).

Muchtolifah (2005) explains that entrepreneurship orientation is the organizational capability contributes to the creation of unique organizational resources, positional advantages that affect performance. Furthermore Risnawati and Noermijati (2008) explain the orientation of entrepreneur is the orientation of corporate strategy in entrepreneurship to gain competitive advantage with indicator: decision making, practice and method. The entrepreneurial orientation is also an individual's inclination to do Competitive Advantage, proactive and willing to take risks to start or manage Ginsberg's business in Isa (2011). Furthermore, Morris and Paul in Fayolle (2007: 129) explain the entrepreneurial orientation is the tendency of top management to take calculated, innovative and proactive risks.

The entrepreneurial orientation also an important factor affecting sustainable competitive advantage, and also an important factor for the capability of the marketing innovation as it can change the environment and open the new business or servants (Drucker,1985; Man, Lau and Chan, 2002; in Darsono, 2014) stated that there are six main areas to develop entrepreneurial competence, namely opportunity relationship, conceptual, organizing strategic and commitment competencies .Main
companies with entrepreneurial characteristics have higher performance (Khandwalla, 1985; in Darsono, 2014).

Knight (2000) explains that the entrepreneurial orientation is related to search opportunities, the courage to take risks and the decision to act on the leader of the organization. Orientation Entrepreneurship is a corporate value system and will define corporation strategy. Companies that have a value system will continue to look for opportunities to try to penetrate new markets to take the opportunity to improve company performance (Pure, Alhansji, Idrus, Arifin, 2014).

Jones (2001) in Kiiru et.al., (2013) states that competitive advantage is a product of competitive strategy, which demonstrates the ability of managers to effectively apply material and material resources to gain more value and performance from business competition. Furthermore, Kiiruet.al., (2013) in the study used competitive advantage variables as independent variables measured in terms of cost leadership, perceived quality improvement and market responsiveness. Based on this argument, the study proposes:
H3: Entrepreneurial Orientation has a significant effect on Business Performance through Competitive Advantage.

**Knowledge Management, Competitive Advantage and Business Performance**

Beccera-Fernandez (2004), Knowledge management can be defined simply as "doing what it takes to get as much knowledge as possible". Knowledge management is also defined as the process needed to create, capture, codify and spreading knowledge to the organization to achieve competitive advantage. Every individual is the source of organizational knowledge.

According to Marquardt (2002) and McElroy (2002) the three most popular processes, as they are most often applied, are knowledge acquisition processes, knowledge sharing and knowledge utilization processes. Further knowledge management has also been described for possible roles in creating sustainable competitive advantage for organizations (Grant, 1996; Johannessen and Olsen, 2003; Lado & Wilson, 1994). While the notion that knowledge management may be able to create a sustainable competitive advantage for the company is provocative, work in this area is relatively underdeveloped, both empirically and theoretically.

Knowledge management is a formalization and access to, experience, knowledge and expertise that create new capabilities that enable superior performance, drive innovation and enhance customer value (Khan, 2012). Knowledge management is a process that helps organizations to find, select, organize, disseminate, and transfer important information and expertise that needed for activities (Zaied, 2012). Knowledge management as the management of corporate knowledge and intellectual assets can increase the range of organizational performance characteristics and added value by enabling a company to act smarter (Wiig, 1993 in Khan, 2012).

Furthermore, there is general agreement that knowledge management is the most important competitive advantage factor for organizations (Drucker, 1993; Quinn, 1992; Stewart, 1997; Toffler, 1990; Ferran - Urdaneta, 1999 in Halawi, et.al., 2005) Oriented In practitioner studies, both from the United States and Europe, points to a general consensus on the importance of knowledge as the basis for competitive advantage and superior operational effectiveness (e.g. see Skyrme and Amidon, 1997; KPMG Management Consulting, 1998; Price Waterhouse Coopers and Economic Forum World 1999 in Halawi, et.al., 2005). This statement is supported by several studies suggesting that knowledge management has a significant effect on competitive advantage (Castro et al. (2005); Hlupic, et al. (2002); Lee and Tsai
Based on this argument, the study proposes:
H4: Knowledge Management has a significant effect on Business Performance through Competitive Advantage

Research Method
This research was conducted in Banda Aceh city and Aceh Besar Regency. The Research Object is the Role of Competitive Advantage in mediating the effect Entrepreneurial Orientation and Knowledge Management toward Business Performance on small industry of Embroidery Aceh’s Motifs. The research population is all small business units of embroidery craft in Banda Aceh City and Aceh Besar Regency. The sample selection is based on purposive sampling with IKM criteria that have been operating for 5 years and registered in Disperindagkop and UKM of Aceh Province. Respondents in this study were small business owners / managers of embroidery craft which amounted to 257 respondents.

The data needed for this research are primary and secondary data, primary data obtained by interview method and distributed questionnaire where each item is ranked based on Likert Scale Summated Rating method with interval scale with seven alternative answers 1-2-3-4-5-6-7. Evaluation and analysis of primary data conducted by SPSS. To analyze the role of mediating variable fully mediated or partially mediated, it can be implemented to refer to Baron and Kenny’s opinion(1986) in Ma’ruf (2005) to conduct indirect effect test i.e. regression technique hierarchy. The equation formulation is as follows:

I. \[ Y = b_1 X_1 + b_2 X_2 + e_1 \]
II. \[ Z = b_1 X_1 + b_2 X_2 + b_3 Y + e_2 \]

Remarks :
Y = Competitive Advantage
X1 = Entrepreneurial Orientation
X2 = Knowledge Management
Z = Business Performance
b = Coefficient
a = Intercept
e = Error term

Results and Discussion
The respondents profile is illustrated in Table 3 below, from the table it can be seen that the managers of SMEs are has a bigger percentage for women that is 89.9 percent compared with men only at 10.1 percent. Furthermore, the age of respondents showed as many as 10.5% were < 30 years old, 17.5% were 31-40 years old, 36.2% were 41-50 years old, 35.8% were > 51 years old. The education level of Junior High school respondents is 16.7%, Senior High School is 45.9%, Diploma 34.2%, Bachelor is 3.1%, and for income / year, 59.15% has income > 100 million, 26.07% have income 101-200 million, 12.06 % Has revenues of 201-300 million, and as many as 2.72% have revenues > 300 million.
To find out the relationship between Entrepreneurial Orientation and Business Performance was tested using regression analysis (H1) and also Knowledge Management to Business Performance (H2). The regression analysis result in Table 3 indicates that KM is positively and significantly related to performance. This finding supports H1. Similarly, finding indicated that EO has a significant positive relationship to performance, thus (H2) also supported.

<table>
<thead>
<tr>
<th>No.</th>
<th>Demographic Variable &amp; Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.Male</td>
<td>26</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>2.Female</td>
<td>231</td>
<td>89.9</td>
</tr>
<tr>
<td>2.</td>
<td>Years of Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.≤ 30 years</td>
<td>27</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>2.31 – 40 years</td>
<td>45</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>3.41 – 50 years</td>
<td>93</td>
<td>36.2</td>
</tr>
<tr>
<td></td>
<td>4.≥ 51 years</td>
<td>92</td>
<td>35.8</td>
</tr>
<tr>
<td>3.</td>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Junior High School</td>
<td>43</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>2.Senior High School</td>
<td>118</td>
<td>45.9</td>
</tr>
<tr>
<td></td>
<td>3.Diplom</td>
<td>88</td>
<td>34.2</td>
</tr>
<tr>
<td></td>
<td>4.Bachelor</td>
<td>8</td>
<td>3.1</td>
</tr>
<tr>
<td>4.</td>
<td>Income Per/Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. ≤ Rp 100 million</td>
<td>152</td>
<td>59.1</td>
</tr>
<tr>
<td></td>
<td>2. Rp 101 million - Rp 200 million</td>
<td>53</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>3. Rp 201 million - Rp 300 million</td>
<td>33</td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>4. ≥ Rp 300 million</td>
<td>19</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Source: Primary Data Processed 2017.

Table 3. Regression of EO and KM

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
<th>T.-Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>EO</td>
<td>.753</td>
<td>18.258</td>
<td>0.00</td>
</tr>
<tr>
<td>KM</td>
<td>.566</td>
<td>10.968</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The mediating effect of Competitive Advantage on the relationship between Entrepreneurial Orientation and Business Performance was tested based on a regression procedure specified by Baron and Kenny (1986). According to this procedure, the variable can be considered as mediator when the following conditions are met: when there is a significant relationship between independent (predictor) and dependent (criterion) variables; (2) the variation of the independent variable significantly accounts for the variation in the mediator variable; (3) the variation in
the mediator variable significantly accounts for the variation in the dependent variable, and; (4) when the previous conditions are controlled, the previously significant relationship between independent and dependent variable no longer exists (Baron & Kenny, 1986).

![Figure 1. Mediation of CA on the relationship between EO and BP.](image)

As regard to the mediating effect of competitive advantage on the relationship between entrepreneurial orientation and business performance. Baron and Kenney’s (1986) criteria for mediation was followed. The first step (Path a) was assessed through the regression analysis and report an $R^2 = .567$, $P<.000$. The first requirement, significant relationship was established between the independent variable (entrepreneurial orientation) and dependent variable (business performance) with ($\beta = .753$, $t = 18.258$). Next, the second requirement Path a (entrepreneurial orientation to competitive advantage) was assessed through a regression analysis and indicated a significant relationship ($\beta = .379$, $t=8.276$). The third criterion for mediation, Path b (competitive advantage to business performance) the result of the regression analysis shows ($\beta = .505$, $t=9.352$). The last criteria is about regressing independent variable and mediating variable against dependent variable, here and competitive advantage were regressed together against business performance, regression analysis indicated a significant relationship ($\beta = .624$, $t = 18.640$). It was concluded that H3 is supported.

![Figure 2. Mediation of CA on the relationship between KM and BP.](image)

As regard to the mediating effect of competitive advantage on the relationship between knowledge management and business performance. Baron and Kenney’s (1986) criteria for mediation was followed. The first step (Path a) was assessed through the regression analysis and report an $R^2 = .321$, $P<.000$. The first requirement, significant relationship was established between the independent variable (knowledge management) and dependent variable (business performance) with ($\beta = .566$, $t = 10.968$). Next, the second requirement Path a (knowledge management to competitive advantage) was assessed through a regression analysis and indicated a significant relationship ($\beta = .505$, $t = 11.02$). The third criterion for mediation, Path b (competitive advantage to business performance) the result of the regression analysis shows ($\beta = .309$, $t = 9.897$). The last criteria is about
regressing independent variable and mediating variable against dependent variable, here and competitive advantage were regressed together against business performance, regression analysis indicated a significant relationship ($\beta = .336$, $t = 10.033$). It was concluded that H4 is supported.

### Table 4. Result of mediation test of EO, KM, CA and BP.

<table>
<thead>
<tr>
<th>Variable</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM</td>
<td>.505</td>
<td>11.02</td>
<td>.309</td>
<td>9.897</td>
</tr>
</tbody>
</table>

This research develops a conceptual model to examine the role of mediation of competitive advantage in the relationship between entrepreneurial orientation, knowledge management and business performance. The first result shows that entrepreneurship orientation can positively improve firm performance. The findings of this research are consistent with that of the previous studies that established a significant and positive relationship of EO and BP. Wiklund & Shepherd in Setyanti et al. (2013). This concludes that knowledge-based resources and entrepreneurial orientation have a positive effect on SME business performance.

Other studies with similar findings on the positive relationship between entrepreneurial orientation and business performance includes: Solomon (2004), Muchtolifah (2005), Morris and Paul in Fayolle (2007). Other empirical studies have determined that entrepreneurial orientation is associated with firm performance (Covin, Green and Slevin, 2006; Rauch, Wiklund, Lumpkin, and Frese, 2009) and the long-term viability of a company (Zhao, Li, Lee & Chen, 2011). The study of Dani (2012), Hafeez, et. al (2012) found a positive and positive relationship between EO and BP.


Regarding the mediating effect of competitive advantage on the relationship Entrepreneurial Orientation, this indicated a partial mediation between EO, KM and BP. This is line with the finding of Shah et al. (2011), Mujeeb and Ahmad (2011).

### Conclusions

This study has several limitations, namely: First, this study uses a subjective measure of performance from a manager’s perspective. Hence, there is a possibility of bias (Thornton, 1968). Second, this study investigates the relationship between EO and KM on Business performance of SMEs of Aceh motif embroidery craft in Banda Aceh City and Aceh Besar District, with the role of CA mediation. These findings form a positive EO, KM and BP relationship and, and there is no mediating effect between the research constructs.
It is recommended for better future research on the impact of EO strategies, KM, to measure organizational performance by using objective measures. In addition, future research should consider other organizational variables that may provide a match between the organization's strategy and environment by considering contingency theory. Future studies can introduce appropriate moderation or mediation variables between strategy and performance relationships. And finally, the study should be repeated with an increased sample size and in a wider range of sectors.

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