Effect of Information Technology Infrastructure on Competitive Advantages through Competitive Action in SMEs

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The purpose of this study is to find out and analyze the influence of information technology infrastructure, accessibility and mobility on competitive advantage through competitive action in the apparel industry. This paper is based on a quantitative approach using a population of the apparel industry in Bandung Regency, Indonesia. Samples are taken with random sampling techniques. The survey was conducted on 196 small and medium-sized businesses producing apparel. Data is processed using the Structural Equation Modelling-Partial Least Squares (SEM-PLS). The findings show that there is a significant effect of information technology infrastructure, accessibility and mobility on competitive advantage through competitive action. This research shows that information technology infrastructure, accessibility, mobility and competitive action can create competitive advantages in the clothing industry in Bandung Regency, Indonesia. Competitive action is a developing study from the strategic management literature based on a theory of entrepreneurial action and is the ability of companies to create activities to achieve competitive advantage by exploring and exploiting opportunities in carrying out business operations.

Keywords: Apparel Industry, Information Technology Infrastructure, Accessibility, Mobility, Competitive action, Competitive advantage.
Introduction

The role of information technology infrastructure (IT) on economic growth is currently an interesting topic to study (Colin, Galindo, & Hernández, 2015; Erumban & Das, 2016; Salahuddin & Alam, 2016). Every company in the digital economy era faces different challenges in achieving a competitive advantage because the current business environment must be supported by information and communication technology infrastructure (Jehangir, Dominic, Naseebullah, & Khan, 2011). (Teece & Leih, 2016; Farhadi, Ismail, & Fooladi, 2012) propose that each company build a company that is ready to face the techno-business environment to achieve competitive advantage and be able to compete globally. These suggestions are in accordance with the conditions of the current business environment, where the progress of information and communication technology is growing rapidly, so ICTs are becoming a new factor in creating competitive advantages for companies (Mihalic & Buhals, 2013; Apulu & Latham, 2009; Jung, Na, & Yoon, 2013; Li, 2009). IT infrastructure factors become a new weapon of competition, and also an effective strategy to achieve competitive advantage (Davenport & Linder, 1994).

The growth of IT users in Indonesia has shown significant progress. This is by the data shown by the Association of Indonesian Internet Service Providers. Until 2017, 143.26 million people were using IT in the form of internet networks. Utilisation of IT as a company resource for SMEs in Indonesia shows high growth. Euromonitor International notes that Indonesia's online sales are higher than in Thailand and Singapore. The Indonesian e-commerce market is believed to have the opportunity to grow even bigger. This means that the development of mobile phone technology affects business dynamics. (Indonesian Ministry of Cooperatives and SMEs, 2017) noted that SMEs who have used digital technology, such as e-commerce, has reached 3.79 million SMEs. Based on the number of mobile broadband wireless network users (61%), the need for internet network access is very much needed for SMEs in the context of their business activities. Therefore, the construction of network infrastructures such as broadband towers, network cables, telecommunications services and information is important to support the competitiveness of SMEs.

Economic infrastructure is an important aspect that focuses on increasing the competitiveness of SMEs when facing the dynamics of free market competition especially in the global economic era (Cooper, 1999; Fourie, 2006; Marx, 2011; Perkins, Fedderke, & Luiz, 2005). Economic infrastructure includes public utilities, public work and transportation. Based on The Global Competitiveness Report of 2017-2018, one of the factors that has a major influence on SME entrepreneurial activities in the global market era is information technology infrastructure (Schwab, 2017).
The infrastructure that has an important role in the economic growth of a region is road infrastructure. Road is one of the land transportation infrastructures that plays an important role in the transportation sector, especially to support economic growth and develop regional potential. (Haskins, 2008) states that the construction of road infrastructure is an important factor in the development of regional and national economies. Good road conditions cause the production and distribution of goods and services to be more efficient. Road infrastructure has a positive impact on economies of scale, specialisation and cost reduction. Many economic benefits are derived from road infrastructure systems related to income, employment with road construction, reduction in transportation costs, cost and time savings and an increase in industrial productivity. Road infrastructure will provide increase accessibility and mobility of SMEs (Ardhal, Santoso, & Sulistyarto, 2016).

Bandung Regency infrastructure becomes an important factor that affects the development of the region and the economy of the community, especially in the agribusiness, tourism and small and medium enterprises (UKM) sector. (Bandung Regency Cooperative and SME Office, 2017) stated that the number of SMEs in Bandung Regency reached 10,000 units. This amount has reduced the poverty rate from 12% to 7%. Another action taken by the Bandung Regency Government in supporting economic improvement is by optimising infrastructure development.

The apparel industry in Bandung Regency ranks second after the textile industry. As with other businesses, there are always dynamics in the business development of businesspeople in this sector. Competitive advantage is a key success factor in the sustainability of a business. Therefore, the Bandung Regency Government wants entrepreneurs to have a decent place of business that is supported by adequate business infrastructure facilities. This is done by establishing industrial centres that produce superior products. The aim is to make it easier to carry out promotions and at the same time market the products they produce. Thus, it is expected that the quality of goods will be better, and the competitiveness of Bandung Regency business will increase.

The independence or entrepreneurship of a business is an important concept that illustrates how meticulously and tenaciously a business is using existing infrastructure, where competitiveness is considered as an instrument. The industrial sector also plays a role in overcoming labour problems and contributing greatly to economic activities. Small businesses, when faced with complex and turbulent market structures, are required to be dexterous in action. The action is an attitude in the face of changes in the environment taken by finding and maximising opportunities to survive and grow. A new view of dynamic capability according to (Teece & Leih, 2016) is that capability is not treated as a static routine.
In connection with the theory of Actions Competitive Process, research in the capability field finds that competitive actions are determined based on the desire to innovate, take risks and be proactive. Or in summary, these aspects are constructive aspects of the construct. Entrepreneurial orientation (Açıkdilli & Ayhan, 2013; Hu, Zhang, & Niu, 2009; Wiklund & Shepherd, 2005). Research (Sambamurthy, Bharadwaj, & Grover, 2003) on information technology and strategic management found that organisational capability influences company performance mediated by the action of organisational competition, conceptually it also states that organisational agility is a construct that builds the actions of competitive process in SMEs.

**Competitive Actions**

The organisation also influences the competitive advantage of small apparel industry small businesses in Bandung Regency. This condition occurs when free trade such as the ASEAN Economic Community (AEC) has made the business competition more competitive. This phenomenon shows that small clothing sales businesses in Bandung Regency have competition in dealing with internal problems and the macro environment. The apparel industry in Bandung Regency generally faces two important obstacles, namely internal and external constraints. Internal constraints are weak resources, management, bargaining power and legal issues. External constraints are the challenges of competition as a result of globalisation, such as product competition from other countries, the development of information and communication technology and accessibility of goods distribution. These constraints have caused concern for the government, business people and the general public in relation to the competitiveness of the clothing industry in the current business environment.

The originality or authenticity of this research is trying to test and explain the competitive advantage of small and medium enterprises (SMEs) in Bandung Regency based on the Creation Theory of Entrepreneurial Action. Competitive action is the ability of SMEs to explore and exploit opportunities because SMEs have accessibility and mobility in carrying out their business operations. Competitive action also indicates the use of IT infrastructure in creating entrepreneurial activities to achieve competitive advantage.

The problem to be answered by this research is how information technology infrastructure, accessibility and mobility influences competitive advantage through competitive action in small and medium businesses in Bandung Regency.

**Literature Review**

The basic theory in this study refers to the idea (Porter, 1985a) of competitive advantage which was first introduced as a concept in 1985 in his article entitled "Competitive Advantage: Creating and Sustaining Superior Performance." Interestingly, Porter has used the term
competitive strategy in 1980 through his writing entitled "Competitive Strategy: Techniques for Analysing Industries and Competitors", in a previous paper proposed generic strategies for competitive advantage (Porter, 1980).

The statement of creating competitive advantage in entrepreneurship related to Creation Theory of Entrepreneurial Action comes from (Alvarez & Barney, 2007). This theory holds that entrepreneurial opportunities are created from learning processes not discovered. Entrepreneurial action is determined by the actions of SMEs in creating innovation to achieve competitive advantage. The action is in the form of capabilities oriented to achieving competitive competition in the market, the concept forms a behaviour called competitive action. According to (Lyver & Lu, 2018; Bharadwaj, 2000) the ability of information and communication technology is broadly defined as the ability of companies to use "a variety of technologies, ranging from database programs to local area networks". From a literature review of information and communication technology capabilities, three key aspects were identified, namely Information Technology Facility Infrastructure, Information Technology Management Capability and Proactive Information Technology.

(Daft & Lengel, 1983; Wernerfelt, 1984) developed the idea of (E. Penrose, 1959) which states that strategic action requires a set of physical resources in the form of finance, technology, people and organisations. Furthermore, a more comprehensive framework to identify the needs of the characteristics of company resources to achieve competitive advantage is discussed by Barney (1991). These characteristics include valuable resources and scarce resources compared to competitors that are difficult to imitate or cannot be replaced.

This research is theoretically driven by two things. First, the emergence of the information technology infrastructure factor as a company resource in small and medium enterprises is one of the central themes in competitive advantage research (Adeniran & Johnston, 2014; 2016; Chibeleushi & Trigg, 2012; Harrigan, Ramsey, & Ibbotson, 2012; Higón, 2012; Kadadevaramath, Chen, & Sangli, 2015; Lee, 2010; Maguire, Koh, & Magrys, 2007; Olatokun & Kebonye, 2010; Yunis, El-Kassar, & Tarhini, 2017). The idea of IT infrastructure in SMEs was initiated by (J. Barney, 1991) in the journal of management in 1991. Information technology infrastructure in SMEs is closely related to the resources based theory of the firms (E. T. Penrose, 1959) in creating competitive advantage in SMEs (J. A. Barney & Hansen, 1994; Jay Barney, Wright, & Ketchen, 2001; Mata, Fuerst, & Barney, 1995).

Competitive action becomes a strategic resource for building capabilities so that organisations are able to become agile companies (Firm Agility) to gain competitive advantage (Tallon, 2008; Teece & Leih, 2016). Competitive advantage studies are central to the theme of RBV. (Hitt, Ireland, & Hoskisson, 2012; Powell & Dent-Micallef, 1997; Zhang, Ma, Wang, & Wang, 2014) state that competitive advantage is a result of the company's ability to produce Monopoly
rent, Ricardian rent or Schumpeterian rent. Monopoly rent is obtained because the market is protected so that there is no competition. Capability is a resource for achieving competitive advantage. Competitive advantage comes from the capacity and ability of companies to utilise their organisational resources in Schumpeterian competition and environmental change (Foss & Lyngsie, 2011).

**Methods**

The analysis technique uses Structural Equation Modelling (SEM) with Smart-PLS 3 software. According to (Suwarno, 2002), the number of SEM analysis samples that provide fairly stable results is between 200 and 600 respondents. Meanwhile, according to (Hair, Money, Samouel, & Page, 2006) sample size is 5-10 times the number of model coefficients to be estimated.

**Size of the Dataset**

The total population of the Bandung Regency clothing industry is 384 business units with the following characteristics; (1) Recorded as SMEs in Bandung Regency, Indonesia; (2) Utilising IT infrastructure, accessibility and mobility provided in the management of the Company; (3) Meet the criteria as a small business that sells clothing in accordance with the aw of the Republic of Indonesia No. 20 of 2008 concerning Micro, Small and Medium Enterprises.

Based on these criteria, the researcher then referred to the calculation of the number of samples of the Bandung apparel industry. Determination of the number of samples using the Slovin formula, the results show that the sample is 196, with the distribution as follows:

**Table 1: Population Distribution and Research Samples**

<table>
<thead>
<tr>
<th>No</th>
<th>Sub-District</th>
<th>Population</th>
<th>Sample proportion</th>
<th>Number of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dayeuh Kolot</td>
<td>11</td>
<td>(11/384) x 196 = 5.61</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Rancaekek</td>
<td>15</td>
<td>(15/384) x 196 = 7.65</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Solokanjeruk</td>
<td>57</td>
<td>(57/384) x 196 = 29.03</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>Majalaya</td>
<td>50</td>
<td>(50/384) x 196 = 25.52</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Kutawaringin</td>
<td>86</td>
<td>(86/384) x 196 = 43.89</td>
<td>44</td>
</tr>
<tr>
<td>6</td>
<td>Katapang</td>
<td>70</td>
<td>(70/384) x 196 = 35.73</td>
<td>36</td>
</tr>
<tr>
<td>7</td>
<td>Soreang</td>
<td>95</td>
<td>(95/384) x 196 = 48.49</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>384</strong></td>
<td><strong>195.92</strong></td>
<td></td>
<td><strong>196</strong></td>
</tr>
</tbody>
</table>

**Research Hypotheses**

The purpose of this study was to find out and analyse the effect of information technology infrastructure, accessibility and mobility on competitive advantage through competitive action.
in the clothing industry in Bandung Regency. To answer the main purpose of the study, the following hypotheses are considered:

1. **Hypothesis 1:** Information technology infrastructure has a significant effect on competitive action
2. **Hypothesis 2:** Accessibility has a significant effect on competitive action
3. **Hypothesis 3:** Mobility has a significant effect on competitive action
4. **Hypothesis 4:** Information technology infrastructure has a significant effect on competitive advantage
5. **Hypothesis 5:** Accessibility has a significant effect on competitive advantage
6. **Hypothesis 6:** Mobility has a significant effect on competitive advantage
7. **Hypothesis 7:** Competitive action has a significant effect on competitive advantage

**Figure 1. Conceptual Partial Least Square Model**
Result and Discussion

This research uses Structural Equation Model (SEM) analysis techniques with Partial Least Square (PLS). SEM analysis with PLS is done in three stages, namely outer model analysis, inner model analysis and hypothesis testing.

Analysis of the Outer Model

Evaluation of the value of construct reliability is measured by composite reliability, AVE, and Cronbach's Alpha. Each construct is said to be reliable if it has composite reliability, Cronbachs Alpha is greater than 0.70 and AVE is greater than 0.50 (Ghozali, 2011; Latan & Ramli, 2013). The following table presents an analysis of the research outer model:

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>0.956</td>
<td>0.965</td>
<td>0.820</td>
</tr>
<tr>
<td>AKS</td>
<td>0.921</td>
<td>0.950</td>
<td>0.863</td>
</tr>
<tr>
<td>ITI</td>
<td>0.971</td>
<td>0.974</td>
<td>0.679</td>
</tr>
<tr>
<td>KK</td>
<td>0.987</td>
<td>0.990</td>
<td>0.941</td>
</tr>
<tr>
<td>MBL</td>
<td>0.895</td>
<td>0.928</td>
<td>0.764</td>
</tr>
</tbody>
</table>

Based on the table above it can be seen that all constructs have composite reliability greater than 0.70, so it can be said that the indicators are consistent in measuring the construct. Thus, the first order extract (information technology infrastructure (ITI), accessibility (AKS), mobility (MBL), competitive action (AK) and competitive advantage (KK)) has a composite reliability value and Cronbachs Alpha above 0.70. The results show that all the outer model criteria are met. It can be concluded that the research data is valid and reliable, therefore it can proceed to the analysis of inner models.

Analysis of the Inner Models

After testing the outer model, the inner model test is then performed which is seen from the values: R2 (R Square), Q2 (Predictive Relevance), GoF (Goodness of Fit). The following are the results of testing the inner model:

Table 3. R-Square Value in Structural Models

<table>
<thead>
<tr>
<th>Construct</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>0.693</td>
</tr>
<tr>
<td>KK</td>
<td>0.900</td>
</tr>
</tbody>
</table>
Based on the R-Square table above, it can be seen that sub-structure 1 is known that competitive action can be explained by the construction of information technology infrastructure (ITI), accessibility (AKS) and mobility variable (MBL) of 69.3% and the remaining 30.7% is influenced by other constructs not examined in this study. The value of $R^2 = 0.693$ is above 0.67 (the criteria for good influence are $R^2 > 0.67$) so that the effect of total information technology infrastructure (ITI), accessibility (AKS) and mobility variables (MBL) on competitive action is in moderate criteria.

Whereas in sub-structure 2 it is known that the construct of competitive advantage can be explained by the construction of information technology infrastructure (ITI), accessibility (AKS) and mobility variables (MBL) of 90.0% and the remaining 10.0% influenced by other constructs not examined in research this. The value of $R^2 = 0.90$ is above 0.67 (the criteria for good influence are $R^2 > 0.67$) so that the effect of total information technology infrastructure (ITI), accessibility (AKS), mobility variables (MBL) and competitive action (AK) on competitive advantage (KK) is in good criteria.

The second step of testing the inner model is testing Q2. The following is a Q2 calculation that is done manually, namely:

$$Q2 = 1 - [(1 - R^2_1)(1 - R^2_2)]$$
$$= 1 - [(1 - 0.693)(1 - 0.900)]$$
$$= 0.969$$

From the calculation above, it can be seen that the value of Q2 is 0.969. The Q2 value is 0.969 ($Q2 > 0.35$) which means that the model has been well constructed and has a large predictive ability.

The third step of testing the inner model is testing the Goodness of Fit (GoF). The following is the result of the GoF calculation which is done manually, namely calculating from the average root $AVE x R^2$:

$$GoF = \sqrt{AVE x R^2}$$
$$= \sqrt{0.628 x 0.349}$$
$$= 0.805$$

From the calculation above it can be seen that the GoF value is 0.805. The GoF value of 0.805 ($GoF > 0.38$) shows that the model formed in this study has a strong structure or a strong relationship between variables.
Hypothesis Testing

After testing the outer and inner model, then the hypotheses can be tested to find out the influence between variables in this study. The relationship between constructs can be said to be significant if the T-Statistics value is greater than 1.96 or 2.0 (Yamin, 2011). The following table presents the results of testing the hypothesis of the direct effect of exogenous variables on endogenous variables in this study, namely:

Table 4: Value of Path Coefficients

|                        | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------------|---------------------|-----------------|---------------------------|---------------------------|----------|
| AK -> KK               | 0.221               | 0.219           | 0.059                     | 3.764                     | 0.000    |
| A KS -> AK             | 0.293               | 0.284           | 0.095                     | 3.069                     | 0.002    |
| AKS -> KK              | 0.317               | 0.321           | 0.063                     | 5.017                     | 0.000    |
| ITI -> AK              | 0.273               | 0.275           | 0.096                     | 2.850                     | 0.005    |
| ITI -> KK              | 0.346               | 0.342           | 0.065                     | 5.314                     | 0.000    |
| MBL -> AK              | 0.327               | 0.334           | 0.070                     | 4.652                     | 0.000    |
| MBL -> KK              | 0.139               | 0.141           | 0.043                     | 3.229                     | 0.001    |

Based on the table above, it can be seen that all exogenous variables have a significant effect on endogenous variables. Evaluation of structural models begins by looking at the significance of the relationship between the constructs indicated by the t-value statistic greater than 1.96 and P-Values less than alpha 0.05, including the following:

1. That information technology infrastructure has a positive and significant influence on competitive action (t = 2.850) with path coefficients of 0.273 or 27.3%
2. The effect of accessibility has a significant positive effect on competitive action (t = 3.069) with a path coefficient of 0.293 or 29.3%
3. The influence of mobility has a positive effect significant to competitive action (t = 4.652) with a path coefficient of 0.327 or 32.7%.
4. Information technology infrastructure has a significant positive effect on competitive advantage (t = 5.314) with a path coefficient of 0.346 or 34.6%
5. The influence of accessibility has a significant positive effect on competitive advantage (t = 5.017) with a path coefficient of 0.317 or 31.7%
6. The effect of mobility has a positive and significant effect on competitive advantage (t = 3.229) with path coefficients at 0.139 or 13.9%
7. The effect of competitive action has a significant positive effect on competitive advantage (t = 3.764) with a path coefficient of 0.221 or 22.1%
In this study, not only was the direct influence of information technology infrastructure variables, accessibility, and mobility on competitive action analysed, but also indirect effects of information technology infrastructure, accessibility, and mobility on competitive advantage through competitive action which is a mediating or intervention variable. The following is a table of results of the analysis of these indirect effects:

|                  | Original Sample (O) | T Statistics (|O/STDEV|) | P Values |
|------------------|---------------------|-----------------|----------|
| AKS -> AK -> KK  | 0.065               | 2.549           | 0.012    |
| ITI -> AK -> KK  | 0.060               | 2.130           | 0.034    |
| MBL -> AK -> KK  | 0.072               | 2.698           | 0.008    |

1. The effect of information technology infrastructure on competitive advantage through competitive action shows the value of t-count of 2.130 greater than the t-table value of 1.96 indicating there is a significant effect with the path coefficient of 0.060 or 6.0%.
2. The effect of accessibility on competitive advantage through competitive action shows the value of t-count of 2.549 is greater than the t-table value of 1.96 indicating there is a significant effect with the path coefficient of 0.065 or 6.5%.
3. The effect of mobility on competitive advantage through competitive action shows the value of t-count of 2.698 is greater than the t-table value of 1.96 indicating there is a significant effect with the path coefficient of 0.072 or 7.2%.

Here are the results of the smart-PLS output for the statistical t-test:
Table 6: Summary of Research Hypotheses Test Results

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information technology infrastructure has a significant effect on competitive action</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Accessibility has a significant effect on competitive action</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Mobility has a significant effect on competitive action</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>Information technology infrastructure significantly influences competitive advantage</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>Accessibility significantly influences competitive advantage</td>
<td>Accepted</td>
</tr>
<tr>
<td>6</td>
<td>Mobility significantly influences competitive advantage</td>
<td>Accepted</td>
</tr>
<tr>
<td>7</td>
<td>Competitive action significantly influences competitive advantage</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Discussion

In this context, the analysis shows that IT infrastructure, accessibility and mobility have a major impact on increasing the effectiveness and efficiency of companies, which all must be supported by the company's competitive action to produce competitive advantages to compete in a dynamic market.
Environment, organisational and technological factors make the business environment competitive. These factors can change rapidly, which is sometimes unpredictable. As a result of this rapid change, companies need a quick reaction in dealing with problems and opportunities that result from the new business environment (which focuses on consumers).

Understanding information technology infrastructure (ITI) as an antecedent of competitive advantage in the concept of corporate resources (firm resources) cannot be separated from resource-based theories of the firms or resource-based view (RBV). The phenomenon that occurred in Indonesia related to the development of IT where there was a very rapid change, especially in the SME environment, which resulted in SMEs also having to respond quickly to the changes that occur. To realise the speed of responding to changes in the environment, many companies utilise information technology (IT) to optimise their business processes. In this regard, information technology is needed by SMEs to experience gradual changes to benefit from the presence of new technology and efficiency. Besides, information technology is also needed to make changes to business processes to meet current strategic needs and to meet consumer needs.

Information technology infrastructure can be defined as the foundation of information technology capabilities, which includes all companies in the form of services that are reliable and often budgeted for and provided by information systems groups or outsourced (Lacity & Hirschheim, 1995). The capability of information technology can be defined as the ability to mobilise and disseminate information technology based on resources by combining it with other resources or capital. Information technology according to (Higón, 2012; Lucchetti & Sterlacchini, 2004) includes ICT application with indicators: 1) PC application; 2) e-Mail; 3) website; 4) e-commerce; 5) use of computers and internet for research and development or designing products.

Infrastructure has an important role in driving economic growth. In the research of (Liu & Fang, 2016) the term competitive advantage means companies can create economic value more than their competitors (Porter, 1985b). (Newbert, 2008) extends Porter's concept and emphasises that competitive advantage is generally conceptualised as the implementation of corporate strategies to achieve cost reduction goals, market opportunity exploitation, and/or neutralisation of the threat of competition.

The role of infrastructure development will affect the issue of social and economic inequality in a region. Infrastructure includes all physical and non-physical facilities, which are built by individuals or governments to support the implementation of community activities including entrepreneurial activities that require access in carrying out business activities. (Srinivasu & Srinivasa, 2013) suggested that infrastructure development can stimulate entrepreneurial activity so that it will influence the rate of economic growth through competitive action.
(Capineri & Leinbach, 2006) states that the era of the global economy makes small and medium enterprises (SMEs) the main figures in free-market competition. The role of government in this context is very important as a form of support for SMEs, one of which is accessibility (Andrevski, Brass, & Ferrier, 2013).

Activities of small and medium enterprises in developing countries and even developed countries, run on market conditions that are very uncertain and always dynamic (Frambach, Prabhu, & Verhallen, 2003; Laforet, 2008). Related to this, information and communication technology infrastructure are needed by SMEs so as to deal with the changes that exist to be able to respond to market changes better with the use of ICT effectively and efficiently.

After the company can utilise IT as a scarce resource, there are other external factors such as government policies in a region and how its transportation system contributes to improving the competitiveness of SMEs. A good transportation system will then have high mobility in SMEs. This means that the level of ease (accessibility) can influence (increase and decrease) the mobility of SMEs (L’os, 2007; Cooper, 1999).

This study focuses on the relationship between competitive action and competitive advantage. Competitive advantage grows fundamentally from growth, innovation and change. Differences in company performance are not so much explained by the existing market position, but with competitive actions from time to time (J. Lee, 2017).

**Conclusion**

Small and medium enterprises in the apparel industry sector need to improve their competitive actions, especially those related to ICT utilisation, so they can quickly change market changes and by utilising accessibility and mobility so that they can reach a wider market, not only local but also abroad. Besides, available IT infrastructure, accessibility and mobility can help companies to improve the efficiency and effectiveness of their business activities, which in turn can increase the competitive advantage of small businesses.

The relationship between competitive action and competitive advantage is worth considering because this relationship has been explained consistently in previous studies. Research on strategic management shows that competitive action reflects the organisation's strategy to achieve certain competitive advantages.

To succeed (survive) in this dynamic world, SMEs should not only carry out traditional actions such as lowering costs but also carry out innovative activities such as changing structures or processes called critical responses activities. These activities can be carried out in several or all organisational processes. The response can react to the pressure that occurs, or the response
can be a planned initiative to defend the organisation by taking action to counter negative coverage by the press. Response can also be an activity that exploits opportunities created by changing conditions. Most of these response activities can be facilitated well with information technology (IT).

**Originality and Novelty**

This research is trying to test and explain the competitive advantages of small and medium enterprises (SMEs) in the apparel industry sector in Bandung Regency based on the Creation Theory of Entrepreneurial Action. In this case, there are three variables involved, namely information technology infrastructure, road infrastructure in the form of accessibility and mobility, and competitive action in the process of entrepreneurial action. Competitive action is the ability of SMEs to explore and exploit opportunities because SMEs have accessibility and mobility in carrying out their business operations. Competitive action also indicates the use of IT infrastructure in creating entrepreneurial activities to achieve competitive advantage.

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REFERENCES


