THE INFLUENCE OF ENTREPRENEURIAL ORIENTATION ON INNOVATION CAPABILITY BY ABSORPTIVE AND NETWORKING CAPABILITY: A CASE STUDY OF TEMPE CHIPS SMES IN MALANG

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ABSTRACT

This study aims to analyze the effect of entrepreneurial orientation, absorptive capability, and networking capability on innovation capability; examine the effect of entrepreneurial orientation on innovation capability mediated by absorptive capability and networking capability. The sample in this study was 89 owners of SME owners of tempeh chips in the Sanan Industrial Center of Malang. Data analysis using Partial Least Squares (PLS). The results show that entrepreneurial orientation has a direct positive effect on innovation capability; entrepreneurial orientation does not affect absorptive capability; entrepreneurial orientation has a direct positive effect on networking capability; absorptive capability has a direct positive relationship to innovation capability; networking capability has a direct positive impact on innovation capability; entrepreneurial orientation does not affect innovation capability through absorptive capability; entrepreneurial orientation has a positive effect on innovation capability through networking capability.

Keywords: Entrepreneurial; innovation; absorptive; networking; SMEs

INTRODUCTION

SMEs play an essential role in the issue of creative economic growth in ASEAN countries, Indonesia (Afiyie et al., 2020). SMEs are called drivers of the creative economy sector that focus on implementing the Indonesian government's Sustainable Development Goals (SDGs) until 2030 (Anjaningrum & Rudamaga, 2019). This long-term decision cannot be separated from the significant contribution to the National GDP. The contribution of the creative economy sub-sector to the national Gross Domestic Product (GDP) reached IDR 1,211 trillion, with exports reaching US$20 billion and presenting 18.1 million job opportunities in 2019 (Kemenkraf, 2019). In the 2020 OPUS Report, the creative economy ranks itself as the third largest contributor to National GDP in the world (Kementerian Pariwisata dan Ekonomi Kreatif, 2021).


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The creative economy is a new economic concept that makes competition dynamics difficult for SMEs today (Desiana et al., 2022). This is because they do not only compete in terms of price and quality but prioritize information and creativity, as shown by innovation in creating unique products marketed and increasing value creation for customers (Chollisni et al., 2022; Puspaningrum, 2020). Meanwhile, Indonesia is only ranked 115th with a value of 0.202 in the Global Creativity Index, below several ASEAN countries such as Singapore, which is ranked 7th with a value of 0.896 and other ASEAN countries such as Vietnam, the Philippines, Laos, Cambodia, Malaysia and Thailand (Setiawan, 2018). Moreover, until 2021, Indonesia only ranks 87 out of 132 in the Global Innovation Index (WIPO, 2021). This indicates that businesses in Indonesia still have a low level of innovation.

Innovation Capability is the key to how SMEs can thrive in the era of digitalization and the global crisis of the Covid 19 Pandemic by properly managing the resources owned by the company (Bagheri, 2017). Innovation Capability has an essential role in creating a competitive advantage. This ability is essential in developing further resources for a business's sustainability (Burvill et al., 2018; Carayannis et al., 2014). Innovation Capability is needed, especially in the successful development of new products (Bertello et al., 2022; Mendes et al., 2021; Zou et al., 2021). Weak innovation capability will further complicate the company's efforts to convert ordinary resources into rare processes that are difficult to imitate (Bagheri, 2017; Kabue & Kilika, 2016). This is the reason why businesses in Indonesia, especially SMEs, which are the drivers of the creative economy, need human resources who are aware of the importance of collaboration between organizations on ideas, development, commercialization of innovative new products, and combining resources effectively to increase innovation (Salo et al., 2018; Setiawan, 2018; Siswanto et al., 2020).

Human capital is one of the pillars that will affect the level of innovation in Indonesia. Indonesia ranks 91 out of 132 based on the quality of its human capital (WIPO, 2021). Khouroh et al. (2019) argues for the importance of SMEs to have human resources who have an entrepreneurial orientation or high entrepreneurial orientation. This is because they put forward the aspect of daring to take risks, act proactively and always be innovative in decision-making to produce efficient market offerings (Rofiq et al., 2020). It can be assumed that entrepreneurial orientation affects innovation capability (Makhloufi et al., 2021).

Knowledge is also the key to innovation. Thus, SMEs need to pay attention to their absorptive capabilities. This ability makes SMEs faster and more precise in understanding superficial understanding and integrating new knowledge with existing knowledge, and applying this knowledge to achieve advantages such as exploring new opportunities for customers or developing product innovations (Jiménez-Barrionuevo et al., 2019; Tzokas et al., 2015; Zhai et al., 2018). They will respond more quickly to their business environment by making a difference between competitors, especially by utilizing technology (Chollisni et al., 2022; Cuervo-Cazurra & Rui, 2017; Silva et al., 2016; Tjahjana et al., 2020). Thus, it can be concluded that absorptive capability affects marketing performance (Cui et al., 2018; Liu et al., 2018).

However, it is not only the quality of entrepreneurial knowledge that must be improved to increase innovation. However, it must be realized that to increase innovation output, SMEs need to build synergies from external parties such as similar industries, competing companies, partner organizations, governments, universities, suppliers, and customers (Saragih & Tan, 2018). SMEs need to exchange ideas and share experiences to work together to find new ideas and insights in the innovation process in order to be able to compete with local and imported creative products (Chollisni et al., 2022; Hussein et al., 2019). Thus, SMEs must balance with solid network capabilities because the network is also one of the pillars that can improve innovation capabilities (Han & Shah, 2020; WIPO, 2021). Networking capability is maintaining
business relationships at every stage of the relationship life cycle (Mitrega et al., 2012). This ability is often associated with the positive success of a business in creating marketing innovations to get maximum performance and support the development of business value chains (Medase & Barasa, 2019).

These two capabilities will be used as opportunities to answer the digitalization era's challenges and get out of the Covid-19 pandemic crisis. SMEs must have literacy skills from data and technology or from humans who will develop individual characters to collaborate, be adaptive, and be innovative (Cui et al., 2018). Especially for the Sanan Tempe Chips Industry Center, which is the location of the tempe chip business actors. Tempe chips themselves are innovative products that are a priority for the development of the creative economy in the culinary sector of Malang City (Perwal Malang No 12, 2018). Their sales have declined due to losing out to similar business competitors who are more technologically savvy and able to use it effectively and efficiently. It is easier for competitors to innovate products because it is easier to understand the desired product than tempe chips SMEs in Sanan. There are still many traditional entrepreneurs who only rely on tourist visits, and the lack of knowledge of technology makes it difficult for them to innovate during the Covid-19 pandemic.

The importance of innovation capability as one of the demands in the creative economy is vital to study, especially in the SME group. It is mainly related to the importance of increasing capabilities related to the external environment. Thus, this study aimed to determine the effect of entrepreneurial orientation on innovation capability. As well as knowing the mediating role of absorptive capability, networking capability and the impact on innovation capability.

Figure 1. Conceptual Framework

Hypothesis
Hypothesis 1: Entrepreneurial Orientation has a significant effect on innovation capability
Hypothesis 2: Entrepreneurial Orientation has a significant effect on the absorptive capability performance
Hypothesis 3: Entrepreneurial Orientation has a significant effect on networking capability
Hypothesis 4: Absorptive capability significantly affects innovation capability
Hypothesis 5: Networking capability significantly affects innovation capability
Hypothesis 6: Entrepreneurial Orientation has a significant effect on innovation capability mediated by absorptive capability
Hypothesis 7: Entrepreneurial Orientation has a significant effect on innovation capability mediated by networking capability
METHOD
This type of research is explanatory research. The research location is in the Sanan Industrial Center with the research subject of Tempe Chips SMEs business owners. Of the 140 questionnaires distributed, only 89 questionnaires could be processed. This is because researchers use criteria such as SMEs that have been operating for a minimum of 2 years, not status as acquisition SMEs, have a minimum of 2 product variants, use machine assistance in the production process, and carry out production and marketing activities. The number of eligible samples in the study is 30 to 500 (Sugiyono, 2018). The entrepreneurial orientation variable is measured by innovativeness, risk-taking and proactiveness (Lumpkin & Dess, 1996). Absorptive capability is measured through the following dimensions: acquisition, assimilation, transformation and exploitation (Zahra & George, 2002). Networking Capability (Anser et al., 2021) consists of 4 (four) dimensions: coordination, relational skills, partner knowledge and internal communication. Innovation Capability is measured through the dimensions: of product innovation, process innovation and market innovation (Rajapathirana & Hui, 2018; Rakthai et al., 2019). Data analysis was used to test the hypothesis in this study using Partial Least Square (PLS).

RESULTS AND DISCUSSION
A. Convergent Validity

<table>
<thead>
<tr>
<th>Table 1 Convergent validity</th>
<th>Outer Loading</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC1</td>
<td>0,889</td>
<td>Valid</td>
</tr>
<tr>
<td>AC2</td>
<td>0,927</td>
<td>Valid</td>
</tr>
<tr>
<td>AC3</td>
<td>0,925</td>
<td>Valid</td>
</tr>
<tr>
<td>AC4</td>
<td>0,821</td>
<td>Valid</td>
</tr>
<tr>
<td>EO1</td>
<td>0,898</td>
<td>Valid</td>
</tr>
<tr>
<td>EO2</td>
<td>0,864</td>
<td>Valid</td>
</tr>
<tr>
<td>EO3</td>
<td>0,847</td>
<td>Valid</td>
</tr>
<tr>
<td>IC1</td>
<td>0,859</td>
<td>Valid</td>
</tr>
<tr>
<td>IC2</td>
<td>0,837</td>
<td>Valid</td>
</tr>
<tr>
<td>IC3</td>
<td>0,844</td>
<td>Valid</td>
</tr>
<tr>
<td>NC1</td>
<td>0,855</td>
<td>Valid</td>
</tr>
<tr>
<td>NC2</td>
<td>0,885</td>
<td>Valid</td>
</tr>
<tr>
<td>NC3</td>
<td>0,857</td>
<td>Valid</td>
</tr>
<tr>
<td>NC4</td>
<td>0,903</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Based on Table 1, it is known that the table each research variable indicator has an outer loading value > 0.7. This shows that there is no indicator variable whose outer loading value is below 0.5, so all indicators are declared feasible or valid for research and can be used for further analysis.
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B. Discriminant Validity

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
<th>Cut Off</th>
<th>Cronbach Alpha</th>
<th>Cut Off</th>
<th>Composite Reliability</th>
<th>Cut Off</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorptive Capability</td>
<td>0.795</td>
<td>0.5</td>
<td>0.914</td>
<td>0.6</td>
<td>0.939</td>
<td>0.7</td>
<td>Reliable</td>
</tr>
<tr>
<td>Entrepreneurial Orientation</td>
<td>0.756</td>
<td>0.5</td>
<td>0.840</td>
<td>0.6</td>
<td>0.903</td>
<td>0.7</td>
<td>Reliable</td>
</tr>
<tr>
<td>Innovation Capability</td>
<td>0.717</td>
<td>0.5</td>
<td>0.803</td>
<td>0.6</td>
<td>0.884</td>
<td>0.7</td>
<td>Reliable</td>
</tr>
<tr>
<td>Networking Capability</td>
<td>0.766</td>
<td>0.5</td>
<td>0.899</td>
<td>0.6</td>
<td>0.929</td>
<td>0.7</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Based on table 2, the results obtained show that the indicators used in this study have good discriminant validity in compiling their respective variables.

C. Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
<th>Cut Off</th>
<th>Cronbach Alpha</th>
<th>Cut Off</th>
<th>Composite Reliability</th>
<th>Cut Off</th>
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</tr>
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<td>0.6</td>
<td>0.929</td>
<td>0.7</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Table 3 shows that the variables absorptive capability, entrepreneurial orientation, marketing performance and networking capability of the AVE value have a value of more than 0.5, the Cronbach Alpha value is more than 0.6, and the composite reliability value is more than 0.7. Thus, there is no problem of reliability/unidimensionality in the formed model, so this study has a high level of reliability.

D. Hypothesis testing

| Direct Effect                        | Original Sample (O) | T Statistics (|O/STDEV|) | P Values | Results   |
|-------------------------------------|---------------------|----------------|----------|-----------|
| Absorptive Capability -> Innovation Capability | 0.184 | 2.263 | 0.024 | Supported |
| Entrepreneurial Orientation -> Absorptive Capability | 0.145 | 1.291 | 0.197 | Rejected |
| Entrepreneurial Orientation          | 0.220 | 3.349 | 0.001 | Supported |

Table 4 Hypothesis testing
The results of hypothesis testing in the table above can be seen:

1. **Hypothesis 1 (There is an influence between Entrepreneurial Orientation on Innovation Capability)**
   
   The t-statistics value of entrepreneurial orientation towards innovation capability is $3.349 > 1.96$ or it can be seen from the p-value which is $0.001 < 0.05$. Thus H1 is accepted. Namely, entrepreneurial orientation affects innovation capability. EO is an important resource that reflects a strong ability to adapt to business changes innovatively (Makhloufi et al., 2021). SMEs with a high entrepreneurial orientation tend to be the first to introduce new products, use new processes and technologies, and be pioneers in responding to customer needs, which leads to outpacing rivals and making it more difficult for competitors to understand them. With high EO, they will be more willing to take risks to invest in technological innovation. This is because SMEs believe investing in new technology will improve innovation capabilities and business performance, considering all possible circumstances (Wang & Hu, 2020; Wang et al., 2014).

2. **Hypothesis 2 (There is an influence between Entrepreneurial Orientation on Absorptive Capability)**
   
   The t-statistics value of entrepreneurial orientation toward absorptive capability is $1.291 < 1.96$, or it can be seen from the p-value, which is $0.197 < 0.05$. Thus H2 is rejected. Namely, entrepreneurial orientation does not affect absorptive capability. This result is inconsistent with research (Cuervo-Cazurra & Rui, 2017), which states that this capability can help companies make a difference between competitors with the same knowledge. However, it supports research from (Huang & Rice, 2017) that investment in absorptive capability in the short term may not result in direct benefits from innovation. The absorptive capability will give maximum effect if used in the long-term decisions of a business.

3. **Hypothesis 3 (There is an influence between Entrepreneurial Orientation on Networking Capability)**
   
   The t-statistics value of entrepreneurial orientation toward networking capability is $2.842 > 1.96$, or it can be seen from the p-value, which is $0.005 < 0.05$. Thus H3 is accepted. Namely, entrepreneurial orientation affects networking capability. Business actors with high entrepreneurial orientation will tend to utilize network resources to fulfill their ambitions of improving their business performance (Jiang et al., 2016; Nuryakin, 2010). With a high entrepreneurial orientation, SMEs are more proactive in their actions and continue to learn to explore and join in more network search activities to fulfill their ambitions of improving their business performance (Kollmann & Stöckmann, 2014). The

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t-statistics</th>
<th>P Value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial orientation -&gt; Networking Capability</td>
<td>0.264</td>
<td>2.842</td>
<td>0.005</td>
<td>Supported</td>
</tr>
<tr>
<td>Networking Capability -&gt; Innovation Capability</td>
<td>0.597</td>
<td>6.174</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

The table above shows the results of hypothesis testing.
results of this study strengthen previous research from (Jiang et al., 2018; Yoon et al., 2018) that entrepreneurial orientation affects networking capability.

4. **Hypothesis 4 (There is an influence between Absorptive Capability on Innovation Capability)**

The t-statistics value of absorptive capability on innovation capability is 2.263 > 1.96, or it can be seen from the p-value, which is 0.024 < 0.05. Thus H4 is accepted that its absorptive capability affects innovation capability. Makhloufi et al. (2021) states that higher ownership of entrepreneurial orientation allows business actors to continuously maximize market opportunities due to their activeness in accessing new information and knowledge. Exploration related to the search, discovery, discovery and creation of knowledge outside of business activities is used as a source of investment for the creativity needed by small businesses to innovate (Ferreira et al., 2020). Thus, this process will be maximized if the exploitation is related to repetition, implementation, refinement, and efficient use of existing knowledge.

5. **Hypothesis 5 (There is an influence between Networking Capability on Innovation Capability)**

The t-statistics value of networking capability for innovation capability is 6.174 > 1.96, or it can be seen from the p-value of 0.000 < 0.005. Thus H5 is accepted. Namely, networking capability affects innovation capability. Indications of the influence of social capital affect the innovation ability of SMEs. The ability to build a formal and informal network greatly influences the distribution of knowledge, especially high technology knowledge (Purwati et al., 2020). This will help accelerate and minimize the costs of exchanging information as a source of ideas and creative thinking. The networking capability will assist business actors in controlling the main resources that will be improved to be integrated into the new network (Burt & Soda, 2021; Nuryakin, 2020). Collaboration in the network will review various disciplines to access extensive knowledge, especially regarding new product and service technologies, to improve their business innovation capability (Wang & Hu, 2020).

6. **Hypothesis 6: Absorptive Capability mediates the effect of Entrepreneurial Orientation on innovation capability**

Based on the results of hypothesis testing, it is known that entrepreneurial orientation affects innovation capability, which is mediated by absorptive capability. seen from the t-statistics value 1.024 > 1.96, p-value 0.000 < 0.05. So, there is no significant effect between entrepreneurial orientation and innovation capability mediated by absorptive capability. Thus H6 is rejected and does not support the research results (Makhloufi et al., 2021). However, this study supports the statement that the effect of mediation will not be significant if it is only used in the short-term decision process. In addition, absorptive capability cannot influence the innovation of a business because business actors tend to focus on existing knowledge. Moreover, do not dare to take risks to explore new knowledge and combine it with existing knowledge (Seo et al., 2015).

7. **Hypothesis 7: Networking Capability mediates the effect of Entrepreneurial Orientation on Innovation capability**

As seen from the table above, entrepreneurial orientation's effect on innovation capability is mediated by networking capability. It can be seen from the t-statistics value of 2.665 > 1.96 and p-value of 0.008 < 0.05, then H7 is accepted. Entrepreneurs who proactively engage in environmental scanning and resource/opportunity-seeking actions of organizations and institutions with which they have or wish to build corporate-corporate relationships can be characterized as valuing an open systems mindset that
seeks to proactively pursue entrepreneurial initiatives within established networks (Jiang et al., 2018). SMEs actively involved in open innovation strategies such as networking or technology acquisition and combining it with absorptive capability will have a better influence on innovation. With a strong networking capability, SMEs will be more effective in reducing the negative impact of purchasing technology (Huang & Rice, 2017).

CONCLUSION

Based on the study’s results, the following conclusions can be drawn: entrepreneurial orientation significantly affects innovation capability. With entrepreneurial orientation, SMEs will be more vital in adapting to their environment and able to innovate with high creativity than their competitors. EO affects the ability of innovation activities through learning, creation of new ideas, routines and practices, information flow, and product design improvement processes. Entrepreneurial orientation has no significant effect on absorptive capability. Entrepreneurial orientation does not affect absorptive capability if SMEs only focus on exploiting existing knowledge without being balanced with exploring new knowledge. Entrepreneurial orientation has a significant effect on networking capability. Entrepreneurial-oriented companies will take advantage of their network and build new networks to reproduce helpful information for product development.

The absorptive capability has a significant effect on innovation capability. The higher the absorptive capability, the higher the innovation capability it has. Absorptive capability can make it easier to identify market needs and needs by exploring the knowledge needed to create creative ideas. Networking capability has a significant effect on innovation capability. This capability can create network collaboration that can accelerate the distribution of knowledge, especially high-tech knowledge.

The effect of entrepreneurial orientation on innovation capability cannot be mediated by absorptive capability because absorptive capability will have a maximum effect on innovation capability in long-term needs. The absorptive capability will be vital for SMEs if there is an efficient collaboration between new and existing knowledge. Entrepreneurial orientation has a more significant effect on innovation capability through networking capability. Active companies continue to seek external information and build a new network to develop new products to meet market demands. Active network collaboration built by business actors also helps distribute new knowledge from various fields of science as a source of creative idea investment for SMEs.

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