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Using Technological Relational Capabilities to Investigate Marketing Performance in International Wooden Market

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Abstract

This research aims to analyze the effect of technological relational capabilities on international market entry strategy and export marketing performance. This study used a sample of medium and large scale industry in wooden export market orientation in Jepara region. The paper proposes a conceptual model of the relationship between technological relational capabilities on export marketing performance. A purposive sample consisting mainly of wooden export market orientation was selected. The primary data were collected through a questioner, and AMOS was used to test for the hypothesis relationships. The findings concluded that technological relational capability positively effects on export marketing performance and international market entry strategy as the intervening between technological relational capabilities on export marketing performance.

Keyword : technological relational capabilities, international market entry strategy, marketing performance

1. Introduction

The recent development of technology has demanded organizations in utilizing their resources and expertise to developing a business strategy [1]. The precise strategy determining will create competitive for the organization that will be assure its existence. Taiwo [2] has explained that an organization needs to create their strategy and achieve their competitive advantage and target of the organization through conceptualizing, designing, and executing various strategies. Moreover, Bharadwaj, Varadarajan [3] stated that the purpose of the competitive strategy is to achieve sustainable competitive advantage in order to enhancing business performance.

The role of organization's ability in utilizing information technology and internet to achieve performance in international market has been investigate e.g. [4-7]. According to, Moen, Madsen [6] asserts the crucial role in utilizing internet for companies to achieve the international market through business to business partnership. Furthermore, Moen, Madsen [6] explain the utilization of ICT in business relationship can be used by the organization to search market information and to create a value life time relationship. The research has also concluded that the ICT utilization has also positively related to the organization's satisfaction in building new market.

The effect of IT capability to enhancing performance have also been studied in the different context an organization, such as in banking industry [8], in SMEs [9-12], in financial service organization [13] and in multinational company [14]. Moreover, those studies explain the important role of IT utilization for organization in improving business performance, either from the financial performance, operational performance, or marketing performance. Ngugi, Bournemouth University [15] explain the role of technological relational capability to achieve international market.

This research aims to analyze the effect of technological relational capabilities on international market entry strategy and marketing performance. Moreover, the paper proposes a conceptual model of the relationship between technological relational capabilities on marketing performance.

2. Theoretical Framework and Hypothesis Development

2.1. The Impact of Technological Relational Capabilities on Marketing Performance

Technological Relational Capabilities is a part of the internal resource capability within an organization. A view on resource basis claims that the sustainable competitive advantage of a company is derived from the valuable, rare, and difficult to imitate resources [16]. Based on Resource Based View (RBV), technological capability determines the root of sustainable competitive advantage of a company. The ability in utilizing technology covers the ability in creating right of patent protected by the law, technology knowledge, and production skills which are valuable and difficult to imitate by competitors [17]. Information technology risk management can be enhance business performance [18]. Moreover, [18] explain the important of IT risk management to enhancing business performance with the balanced scorecard (BSC).

Some other researchers found that the ability in utilizing technology is very important for the success of organization's performance. According to, Barnes and Chakrabarti [19] explained that business growth and the big size of a market have become a big motivation for SME actors in extending international market. Furthermore, it is explained that cultural issue is not a barrier for an organization to reach international market; however, product quality and competitive price become the success key to seize international market. However, the relational capability is an important social assets to enhancing the organization performance [20].

The adoption in utilizing information technology has a positive effect on business performance [12]. Furthermore, the ICT adoption positively effects the marketing capability on business performance. According to Patrakosol and Lee [7] stated that IT Technical capabilities has a positive relationship with inter firm performance. On the other hand, Daral and Levsen [1] reviewed the effect of internet utilization in corporation and hospitality industry performance which revealed that the hospitality industry actors have high dependence on the utilization of internet in serving customers' orders.

Based on previous studies we propose the following :

H1: Technological relational capabilities has positive effect on marketing performance.

2.2. The Impact of Technological Relational Capabilities on International Market Entry Strategy

The development of globalization has made organizations to improve speed and establishment in different area, like transportation, internet, and information technology and economy improvement, commerce, and exchange among countries [21]. A study done by Barnes and Chakrabarti [19] assessed success factors of SME in international commerce and SME challenges in export market. Findings in the research showed that business profit, business growth, and the market size have become a big motivation for SME actors in expanding international market.

Relational capability with technology determines the root of sustainable competitive advantage of an organization for that ability can give birth to a patent right protected by the law,

technological knowledge, and production skill which are valuable and difficult to imitate by competitors [17].

The process of technology expansion, such as customer's relation management (CRM) system and social media, has created improvement in the understanding on how organization manages interaction with customers in this recent digital era [22]. Moreover, [22] they studied how technology focuses on customers (CRM/social media) and customers-oriented process affect selling performance. Moreover, technologies based on systems can be support organization communication with customer toward performance [23].

Carvalho and Reis [24] assessed the role of information technology and manager's view in the implementation of creativity techniques, and organizational relationship, which apply information technology that is successful in placing innovative products in market. Those creative techniques used in the organization have contributed on the creation of idea and eventually the launching of innovative products in the market. According to, Li-Hua and Lu [25] elaborated that the dynamic condition of a market is crucial for companies in developing continues competitive advantage. Furthermore, the companies need to own organizational ability in forming products and services offered, hence, they need to update their competitive advantage by utilizing technology.

Wever, Martens [26] assets a relational framework model among the dimension of organizational strategic resource concept through network in reaching company's market. Hou and Chien [27] explained that the market access ability has been the main business asset and key in defending their competitiveness. The organization ability in creating products and services offered by companies need to be continuously updated in order to win the competition through technology utilization [25].

Based on previous studies we propose the following :

H2: Technological Relational Capabilities has positive effects on International Market Entry Strategy

2.3. The Impact of International Market Entry Strategy on Export Marketing Performance

Researches which discussed the strategy in entering international market have not only been studied many in manufacturing business, but also many in the scope of SME, for instance [28, 29]. Overall, the research findings concluded that SME plays a very strategic role as the economy growth and regional development.

Several efforts from organization to enter international market can be carried out in the form of interfirm relationship cooperation. Interfirm relationship, in a study developed by Acedo and Casillas [28], is one of the key factors of an organization in reaching international market. Organization's ability to learn and see other companies' success in reaching international market has also become determinant factor of the organization motivation to penetrate the international market. Meanwhile, Agndal and Chetty [30] stated that business relation is a crucial factor in organizations with business in international market than social relation.

Blomstermo, Sharma [31] elaborated that a company's internationalization process requires several endorsers through experience and knowledge. The company's effort in penetrating the overseas market requires improvement process of experience, knowledge on business partner accumulation,

human and other technical matters and also resources and administrations. Cardoza and Fornes [32] revealed two primary factors of an organization in reaching international market, i.e. business environment where the industry locates and the business establishment process in growing economy. Meanwhile, [33] conducted a study on the retailers' strategy in carrying expansion to international market. The study found that retailers in the US tend to be easy for market expansion along with their business development in the state. They applied Strategic International Retail Expansion (SIRE) model approach in appraising the future of their global market expansion.

Market expansion has a positive effects on medium scale company performance as in [34] research. However, some other researchers found that capabilities in entering the foreign market measured by the product scale launching affect the competitive advantage and profitability positively. In addition, the findings have also emphasized the importance of R&D resources and marketing resources in achieving business profitability. Ruiz, Nocolau [35] stated that foreign expansion strategy to achieve business marketing performance. Determinant factors of the company's performance in the research include product offered and level of development in the target country.

Pehrsson [36] explained organization's internal capabilities cover capability to enter international market and its relation with the business performance. Further, Pehrsson [36] assumed that the company's efforts to establish business in the international market, where the meeting point of companies to enter in the limited international market, is still an interesting topic to be analyzed. Empirical findings indicated that customers' limited access affect the high level of performance.

Based on previous studies we propose the following :

H3: International Market Entry Strategies has positive effect on Export Marketing Performance

3. Sample, Data Collection and Measuring Scale

Respondents of this research were exporters of Wood and the like which include: wooden, rattan, steel furniture, & wood working in Jepara District of Central Java, which are classified as large and medium scale industry. Those industries were distributed into industrial centers of Tahunan, Bandengan, Batealit, and Mlonggo Sub Districts. The analysis unit in this research was managers or owners of export-oriented wooden business. The questionnaire was successfully collected from 152 respondents. A purposive sample consisting mainly of wooden export market orientation was selected. However, there were only 140 respondents' data who were completed and fit to be further processed.

Instrument measuring method here applied likert scale, respondents filled the answering score which ranged from 1 to 5 (1 – 5). The score can move from 1 as the lowest to 5 as the highest score to measure the three variables, i.e. technological relational capabilities, international market entry strategy, export marketing performance. Score 1 represents very disagree answer and score 5 for very agree.

4. Research Findings

Technique used in testing the model and hypotheses in this research was *Structural Equation Modeling* (SEM) by AMOS program. Technique of estimation likehood maximum was used in this research. Therefore, the questionnaire items were assessed using *confirmatory factor analysis* to test

the construct relationship with the indicators (questionnaire validity). Therefore, reliability assessment was used by using *cronbach alpha* (Cronbach's α).

The results of validity and reliability tests can be explored through the following :

Table 1. Confirmatory Factor Analysis and Construct Reliability Measures

Component	Standardized Loading
Technological relational capabilities (Cronbach's α = 0.866)	
• Use email to manage products offered	0.829
• Integrated technical systems and procedure across with supplier	0.769
• IT personnel expertise to communication with buyer.	0.834
• Use web-based applications for displaying business information	0.721
International Market Entry Strategy (Cronbach's α = 0.826)	
• New area market entry initiative	0.678
• Faced with market intense competition	0.781
• Market response activity	0.777
• Response quickly to other competitor actions and create market demand	0.721
Export Marketing Performance (Cronbach's α = 0.834)	
• Sales growth	0.811
• Profitability	0.750
• Market Coverage	0.816

Figure 1. The relationship between Technological Relational capabilities on marketing performance

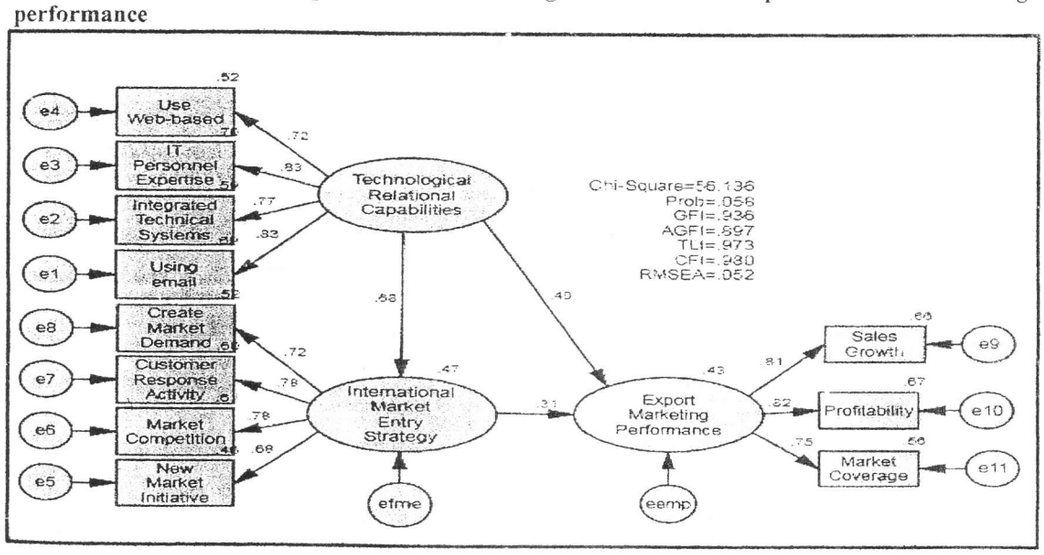

Table 2. Structural Parameter Estimates: Path Analysis Model (n=140)

Structural path	Hypothesis	Standardized coefficient	t-value	Probability
Technological relational capabilities → export marketing performance	H1	0.447	3.025	0.002
Technological relational capabilities → International market entry strategy	H2	0.618	6.043	0.000
International market entry strategy → export marketing performance	H3	0.365	2.379	0.017

X^2 = 56.136, P = 0.058; GFI = 0.936; AGFI = 0.897; RMSEA = 0.052; CFI = 0.980

Note: ** $p < 0.005$

The results of this study indicated that the *goodness of fit* criteria was fulfilled such as *Chi-Square* at 56.136. The probability value was at 0.058. Those two assumptions were fulfilled. The TLI value was at 0.973, GFI at 0.936, AGFI at 0.897, and RMSEA at 0.052 which indicated that those numbers have met the determined cut-off. It means that the research model was accepted and met the determined (standard) criteria.

5. Discussions

Technological relational capabilities has a positive effect on export marketing performance. Table 2 indicated that the *structural path model* which explained the relation between technological relational capabilities on export marketing performance as showed with ($t_{value} = 3.025 > 1.96$) significance value ($0.002 < 0.05$). Furthermore, hypothesis 1 was accepted. It means that technological relational capabilities has a positively effect on export marketing performance.

This research finding confirms the previous researches on the important role of information technology utilization for the success of technology-based organization performance [6], Other studies have also showed similar results that adoption on information technology utilization give positive effect on business performance [12]. This research finding also supports another study done by Patrakosol and Lee [7] who found the positive relationship between technical capabilities with inter firm performance.

Technological relational capabilities has a positive effect on international market entry strategy. It can be explained with ($t_{value} = 6.043 > 1.96$) significance level ($0.000 < 0.05$). Furthermore, hypothesis 2 was accepted. It means that technological relational capabilities has a positively affect on international market entry strategy.

This research finding supports the previous research from Carvalho and Reis [24] who revealed the important role of information technology in placing innovative products into the market. Another similar result was also found by Li-Hua and Lu [25] who emphasized the need for organizations in updating their competitive advantage in the market through technology utilization. Meanwhile, Wever, Martens [26] found the framework model of relationship between the dimension of organization's strategic resource concept through network in reaching the business.

International market entry strategy has a positive effect on export marketing performance as shown with ($t_{value} = 2.379 > 1.96$) significance value ($0.017 < 0.05$). Furthermore, hypothesis 3 was accepted. It means that the international market entry strategy positively affects the export marketing performance. This finding confirms the previous research done by Blomstermo, Sharma [31] who found the company's efforts in entering foreign market require improvement process in experience, knowledge on business partner accumulation, human, and other technical matters and also resources and administrations. Sternquist [33] figured out that retailers in the US tend to be easy in conducting market expansion along with their business development in the state. According to, Ruiz, Nocolau [35] stated that foreign expansion strategy is needed to achieve company's marketing performance, while, Mort and Weerawardena [37] found that network's ability enables to identify and exploit market opportunities, facilitate the intensity development of product knowledge, and company's ability in reaching international market and business performance towards on global market.

6. Conclusions

Implications for the research findings indicate that it is important for organization with export orientation in achieving marketing performance to developing capabilities in utilizing information technology. The research findings indicate that technological relational capabilities has a positively effect on export marketing performance. The result of this study very crucial for export-oriented organizations to developing their ability and create business relationship through technology utilization, such as internet, web-based, information system, and others.

This study confirm that technological relational capabilities also effect on the enhancing of organizations' strategy to achieve international market. Internet network and other communication tunnels utilizations are surely needed by organizations to penetration of international market, especially in searching information about customers/buyers, product designs, and delivery of goods, design documentation to the customers. The final of this research indicate the important for organization to establishing their strategy and reach international market has a positive effect on export marketing performance.

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