

Competence of Business Players in Moderating Market Orientation, Technology and Business Networks toward Product Innovation : A Study of Msmes in Medan, Indonesia

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Abstract. The use of technology has influenced the trading system competition of MSME actors. Thus, MSME actors must be better prepared to compete in the market. This study aims to determine the direct and indirect effects of Market Orientation, Technology Orientation, and Business Network on Product Innovation in Modesari Business Entrepreneurs' Competence. One innovation in solving economic challenges is realising the impact of this perspective. This study used a census method or simple random sampling. The Slovin formula, which takes into account that there are 10,540 people living in Medan's 21 subdistricts, is used to calculate the study's sample size. Thus, 385 were chosen in January 2023 using the accidental sampling technique as the study sample for the Slovin procedure. SEM-PLS data analysis was employed. According to the study's findings, business networks, technology orientation, and market orientation all have a direct impact on how competent business actors are. Competence of business actors can influence how markets, technologies, and business networking are oriented towards product innovation, which has a substantial impact on culinary MSMEs in Medan City. This research has proven that using technology as a competent medium in trade is very influential in increasing MSMEs in Medan. Market moderation has become a solution to facing competition in the market.

Keyword: Product Innovation, Market Orientation, Technology Orientation, Business Network Competence of Business Actors

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) owned by the community are a manifestation of the implementation of entrepreneurial activities carried out by the community. Data shows that more than 90% of the workforce in Indonesia is absorbed through MSMEs. It was informed that in 2019, MSMEs scored Indonesia's Gross Domestic Product (GDP) at 57.14%, meaning half of Indonesia's GDP for the contribution of MSMEs. Thus, it is natural for the government to continue encouraging MSMEs in Indonesia to experience significant expected growth. This means that Micro, Small, and Medium Enterprises are a solution to the economic problems of society in Indonesia. North Sumatra Province, one of the provinces with the most significant number of MSMEs in Indonesia, is expected to contribute significantly to Indonesia's development and economic growth in general and sound economic growth for the province of North Sumatra itself in particular.

The development and growth of businesses run by culinary business people in Medan City has become a form of encouragement for economic development. By understanding market orientation, MSME actors are considered to be able to survive in business competition (Uncles, 2000). MSME actors must pay attention to market orientation in running their business. In recent years, market orientation has been a determining factor for business progress (Jaworski & Kohli, 1996). Product innovation will create a clear position in the eyes of all consumers for the culinary business being run by culinary business actors (Sembiring & Lubis, 2023; Salman, 2015). Research conducted by Ferrell Lukas (2000) on market orientation is proxied using consumer orientation, competitor orientation, and inter-functional coordination to measure the reasons for innovation carried out by companies. Apart from market orientation, several other variables are also considered to have competence in product innovation.

The following variable that needs attention because it can influence MSME product innovation is the technological orientation (Zhou et al., 2005; Zhou & Wu, 2009; Liu & Su, 2014; Deegahwature, 2018; Haug et al., 2020). Data shows that almost all families in Indonesia use technology in the form of the Internet. As of February 2022, internet users in Indonesia have reached 204.7 million people, or equal to 73.7% (Central Bureau of Statistics, 2021). Technology orientation has a great relationship with innovation to affect the performance of small and medium enterprises (SMEs) in emerging markets (Al-Ansar et al., 2013). Therefore, technology and networks also influence the developing business product businesses. Sales technology orientation also directly impacts internal role performance and influences customer performance through multiple mediation mechanisms that involve the effective use of information (Hunter & Perreault, 2006; Halac, 2015). This research will also examine technological orientation competence towards product innovation.

Modernization has become an essential part that traders must utilize in advancing their business. By utilizing the internet network and other mass media, UKMM traders are expected to be more creative and innovative in designing trading systems. So that business actors can advance their business and create new jobs for the community. Of course, the widening of employment opportunities will have an impact on various sectors related to the economic and even social sectors (Chipeta et al., 2017). Therefore, a feasibility test is needed to determine whether market orientation, the impact of modernization, and the utilization of existing networks have impacted product innovation.

Product innovation performance is not only influenced by the length of the company's life, the number of branches, and the company's size. Even though it is difficult in the product development process, product innovation requires adjustments to the product life cycle and regression models or adjustments to the development of the current situation (Krishnan & Ulrich, 2001; Löfsten, 2014). Because product innovation is part of the first stage in the product life cycle management process (Parry et al., 2009), by carrying out an innovation process on MSME products, this trading system will be able to survive. So, it can be said that the modernization process has a positive value for SMEs in Medan. Therefore, testing how market orientation, technology, and network are competent for product

innovation is necessary.

2. Literature Review

2.1. Product Innovation

Product innovation is one of the essential things in attracting consumer interest (Cooper, 2005). In general, innovation is defined as a breakthrough related to new products. Thompson (1965) and Hurley and Hult (1998) define innovation as a broader concept that discusses the application of new ideas, products, or processes. Meanwhile, Hurley and Hult (1998) define innovation as a company mechanism for adapting to a dynamic environment. Therefore, companies must be able to create new thoughts and ideas and offer innovative products and improved services that satisfy customers. Rhenald (2010) said that innovation is the ability to see things in a new way and sometimes outside the box (out-of-the-box thinking). Every company must be able to innovate to develop its products and collaborate with other partners (Un et al., 2010). Because each product has its license and unique characteristics, it is just a matter of collaborating to create new product innovations (Antelo & Bru, 2023; Aarstad & Kvitastein, 2019).

Not much different is explained by Wahyuni & Sara (2020) that innovation is a company's ability to look for something new or better by identifying, acquiring, and carrying out tasks related to products, services, processes, administration and management systems, and marketing methods. And organizational structure. Paying attention to an innovation-oriented and competitive-oriented culture directly influences product innovation (Asaah et al., 2020). Product innovation is all innovations in a company's products or services that involve modifying or updating existing products, expanding product lines, promoting new product lines, and new products with uniqueness or high compatibility with customer experiences and types of consumption (Sukartini et al., 2019). Organizational trends to improve can be seen from the indications of companies engaging in new ideas, novelty, creative processes, and experiments that will create new products/services (Lin et al., 2008; García-Cruz et al., 2018).

2.2. Competence of Business Actors

According to Wibowo et al. (2015), competence is an ability to carry out or perform a job or task based on skills and knowledge and is supported by the work attitude required by the job. Next, according to Stewart (2016), competence is the ability to carry out a task, integrate knowledge, skills, attitudes, and personal values, and build knowledge and skills based on experience and learning. According to Faustyna (2014), competency is a description of behavior. In more detail, the description refers to the characteristics that govern behavior that describe motives, personal characteristics (characteristics), self-concept, values, knowledge, or expertise. Then, according to Wibowo et al. (2015), competency is also "the basic foundation of people's characteristics and shows how to behave or think, align situations, and support for an extended period. Based on the experts' opinions above, competence in this study is an ability to carry out or carry out a job or task based on skills and knowledge and is supported by the work attitude required by the job.

The people who run a business must have skills in marketing and the use of technological media (Devece, 2013; Kowal & Roztock, 2015) because doing business will always be distinct from competence, which can undoubtedly benefit or harm business actors. That is what underlies the importance of understanding management in business because in running a business, there will always be competence for every business actor (Bassellier et al., 2001; Baba, 2018). Entrepreneurship competency is inherent in everyone who runs a business, whether a large business or just an MSME. Of course, everything will not be separated from the competencies that business owners must understand.

2.3. Market Orientation

Market orientation is a business culture where the organization is committed to continuing to be creative and improve in creating superior value for buyers and performance in business. Market orientation is an organizational culture that considers consumers central to business planning (Kara et al., 2005; Syaifuddin et al., 2022). Meanwhile, Van Raaij and Stoelhorst (2008) define market orientation as an organization broadly that has market intelligence that connects current and future customer needs, spreading this intelligence throughout all departments. Meanwhile, Movondo et al. (2005) stated that market orientation is the organizational culture that most effectively and efficiently creates the behavior necessary for creating superior value for buyers and, thus, sustainable superior performance for the business. Market orientation is a popular term used by practitioners in marketing to implement the marketing concept. In the seventies, market-oriented strategies were seen as the central pillar for achieving superior company performance in manufacturing, trading, and service companies (Lanmobil, 2003; Ndubisi, 2007; Jain et al., 2007). An organization or company operating in a market can find a market that is a valuable resource in finding market opportunities based on revealed needs, the failure of competitors to meet the exact needs, or both (Afnita et al., 2014).

Market orientation is the application of value creation and customer marketing concepts throughout organizations everywhere (Crick, 2021; Vijande et al., 2005). Market orientation will be implemented well if the company's internal work orientation contributes to performance results (Modi & Sahi, 2018). The implementation of internal company cooperation will create an increase in product innovation and also pay attention to market orientation. This will encourage the business development process to be better. Marketing actors can use marketing planning techniques as an intangible productive resource to operationalize market orientation strategies and use them to design a particular style and size of market orientation according to business capacity (Taghian, 2010; Felix, 2015).

2.4. Technology Orientation

Technology can differ at least conceptually from general science, although the boundaries between the two are often unclear. Understanding technology, in general, is a facilitator in developing a product and helping to meet market needs and wants because marketing information technology is one of the factors that influence the success of product innovation. Technology orientation is seen as a strategic instrument; technology-oriented product development policies can be used for market competition, assuming that the higher the technology used, the more innovative the products produced and the greater the possibility that the products or services offered can be sold to specific target markets. Use knowledge and necessity to produce better and innovative products to provide solutions and meet new needs for the market (Haug et al., 2020). Clemons and Row (1991) state that the existence of technology is the most critical part and source in achieving a competitive advantage. Marketing information technology plays a vital role and impacts business strategy; a further effect of information technology is to support competitive advantage through continuous innovation by the company. By using sophisticated technology, companies can create better or more innovative products (Li & Calantone, 1998; Syaifuddin & Sidharta, 2017).

Day and Wensley (1988) argue that when marketing information technology changes rapidly, it forces companies to interact with customers because customer needs and preferences can provide direction for changing product markets. As marketing information technology companies evolve rapidly, they feel the importance of obtaining customer information, especially about what customers want and need (Jaworski & Kohli, 1993); Rathnam et al., 1995). The relationship between marketing and technology is a form of strategic integration that forms a competitive advantage. Han et al. (1998) considered that the contextual and technological existence framework (marketing information system) is to create the best relationship between the company and the customer.

Technology orientation significantly influences increasing planning contributions (Mandal, 2018). Because by utilizing technology, people who run businesses can more easily access consumers. Therefore, sensitivity is needed for business actors to understand the use of technology as a means of

doing business. This system can also be done by looking for people who can manage marketing systems using technology-oriented businesses (Biswas et al., 2006; Pearson, 1993). This program is often said to be a business collaboration process in marketing. The orientation of technology and customers influences MSME product innovation (Salavou, 2005).

2.5. Business Network

In running a business, external networks positively moderate the relationship between innovation performance, technology orientation, and innovation performance, mediating the relationship between financial performance (Lee et al., 2014). Business actors must have multiple networks to gain access to marketing their businesses. This access can be obtained from various technological media and the surrounding environment. Business executives must work with the team on how to start a business, business methods, and the process of running a business to survive (Halinen et al., 2012; Pagani & Pardo, 2017). Running a business can be started by joining various organizations, which are people who carry out business activities. Furthermore, this research in the future can also prove whether the orientation of business networks has a significant influence on maintaining product innovation.

A network that is implied as an act of making contact with other people or organizations can also be detrimental to human resources (Dollinger, 1999). According to Ferreira et al. (2007), a business network is a relationship between the parties involved in business transactions, for example, suppliers and buyers, formally or informally. Networks are becoming increasingly important because they make it easier for companies to access information, resources, markets, and technology (Gulati et al., 2000). Information and social networks are essential for company formation, success, and sustainability (Malecki, 2018). Technological learning and other types of organizational learning can occur in informal networks (Malecki, 2018) or formal networks (Zahra et al., 2000). Social networks have an impact on business success. Training studies show that entrepreneurs and start-ups must work together to form networks to be successful (Huggins, 2000) because network organizations operate in an embedded logic language that promotes economic performance through the pooling of resources between firms (Uzzi, 1997).

2.6. Conceptual Framework

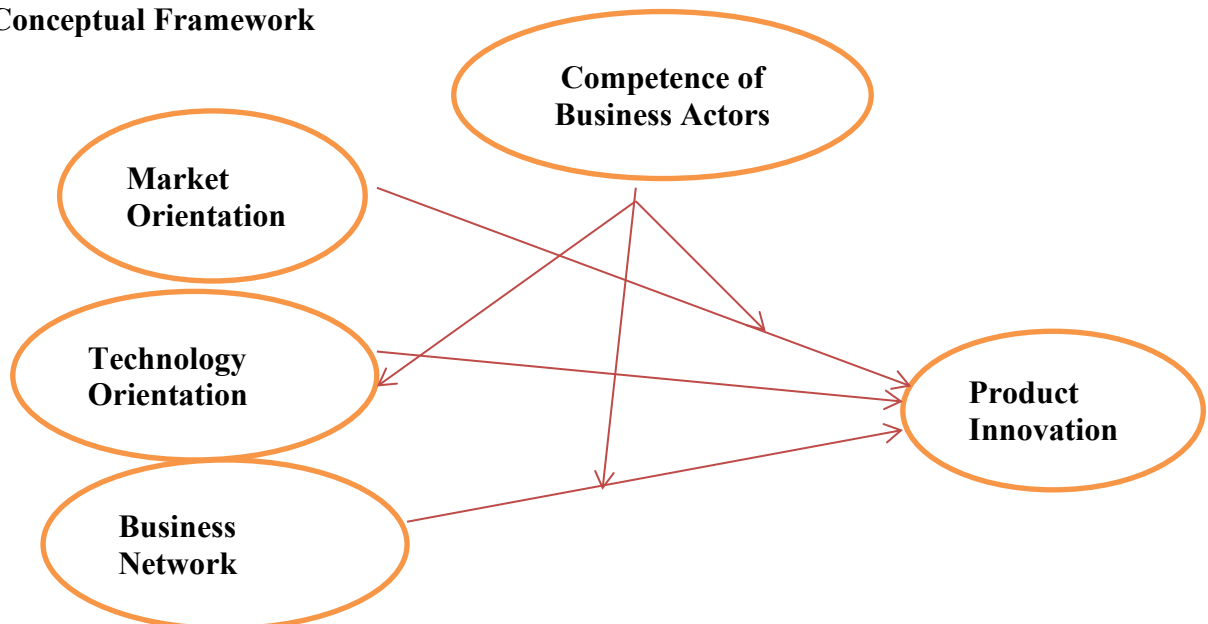


Fig.1: Conceptual Framework

From Figure 1 it can be explained as follows:

1. Market Orientation has a positive and significant effect on Product Innovation in Culinary MSMEs in Medan City

2. Technology Orientation has a positive and significant effect on Product Innovation in Culinary MSMEs in Medan City
3. Business Network has a positive and significant effect on Product Innovation in Culinary MSMEs in Medan City
4. The competence of business people has a positive and significant effect on product innovation in Culinary SMEs in Medan City
5. The Competence of Business Actors Can Moderate Market Orientation towards Product Innovation has a positive and significant effect on Culinary MSMEs in Medan City
6. The Competence of Business Actors Can Moderate Technology Orientation towards Product Innovation, which has a positive and significant effect on Culinary MSMEs in Medan City
7. The Competence of Business Actors Can Moderate Business Networks on Product Innovation has a positive and significant effect on Culinary MSMEs in Medan City

3. Research Method

This study uses a quantitative approach. A quantitative approach is one method that looks for relationships between research variables. This variable will also be measured using predetermined instruments and analyzed through statistical procedures. This study used a census or simple random sampling. Determining the number of samples in this study uses the Slovin formula, where the population of 21 sub-districts in Medan is 10,540. Data was obtained from distributing questionnaires with a Likert scale with a total sample of 385 respondents. The research data were analyzed using structural equation model analysis (SEM) based on partial least squares (PLS), which aims to examine the direct and indirect effects of the research variables used. Through variable testing, the research will compile results as descriptive sentences to make the findings easier to conclude. This research is also reinforced by various literature related to research variables.

The sample selection focuses on MSMEs in the culinary field in the city of Medan. They are making culinary MSMEs an object of research because the city of Medan is one of the cities in Indonesia, which is very rich in various foods. MSME data was obtained from the cooperative office in 2022. The data was broken down to get culinary businesses in 21 sub-districts to represent the city of Medan with business criteria that have been running for 5 years, businesses that use technology, and only for the culinary business sector. The distribution of the research questionnaire will be adjusted to the variables of Product innovation, market orientation, and technology orientation with a Likert scale with a predetermined number of samples. As can be seen in table 1 to table 6 below:

3.1. Research Questionnaire

Table 1. Questionnaire Weights According to the Likert Scale

Weight	Choice	Information
1	STS	Strongly Disagree
2	TS	Don't agree
3	TS	Disagree
4	S	Agree
5	SS	Strongly agree

Table 2. Respondent Identity

Gender	Age	Old UMKM	Last education
<ul style="list-style-type: none"> • Man • Woman 	<ul style="list-style-type: none"> • < 25 Year • 25 - 35 Year • 36 – 45 Year • 46 - 55 Year • > 55 Year 	<ul style="list-style-type: none"> • < 2 Year • 2-5 Year • 5-10 Year • > 10 Year 	<ul style="list-style-type: none"> • Bachelor (S1) • Master (S2) • Doctor (S3)

Table 3. Product Innovation (Y)

PRODUCT INNOVATION (Y)						
No.	Statement	Answer Choices				
		SS	S	KS	TS	STS
1	You can make new food/drinks that you didn't sell before					
2	You can make food / drinks that are currently viral					
3	You can modify the food/drink you previously sold into a new product that is ready to be sold					
4	You can modify old food/drinks to be better and more interesting					
5	You have the ability to make and modify food/drinks more delicious than ever					
6	You can make food/drinks with new and better flavors					
7	You can modify the appearance of food/drinks to be more attractive than before					
8	You can change the entire appearance of your food/drink to be more attractive than before					
9	The food/drinks served use ingredients that are safe for health					
10	The food/drinks served are made using high quality ingredients					
11	You are always introducing the new food.drinks you make to all your customers					
12	You provide promotions for new variants of food/drinks that you produce					

Table 4. Competency (Z)

COMPETENCY (Z)						
No.	Statement	Answer Choices				
		SS	S	KS	TS	STS
1	You are able to make delicious food/drinks					
2	You can afford to make interesting food/drinks					
3	You can manage the finances of the business you are running					
4	You can to manage the right marketing techniques for your business					
5	You can build good communication with all your suppliers					
6	You can communicate well with all customers					
7	You have the ability to create new, better and more interesting products					
8	You can create new services that are more innovative than before					
9	You have high motivation to grow your business today					
10	You have high enthusiasm for opening and adding new business branches					

Table 5. Market Orientation (X₁)

MARKET ORIENTATION (X ₁)						
No.	Statement	Answer Choices				
		SS	S	KS	TS	STS
1	You can collect data about customer desires					
2	You can analyze data as material for you to consider in making business decisions					
3	You can provide a quick response to customer wishes					
4	You can act effectively and efficiently to meet customer needs					
5	You can coordinate well in producing food/drinks quickly					
6	Anda mampu untuk memasarkan produk baru					
7	You can make decisive business decisions to meet customer needs					
8	You can make decisions quickly to change business policies in the face of dynamic market changes					
9	You can create long-term relationships with all customers					
10	You can strengthen customer loyalty					

Table 6. Technology Orientation (X₂)

TECHNOLOGY ORIENTATION (X ₂)						
No.	Statement	Answer Choices				
		SS	S	KS	TS	STS
1	You can utilize modern machines to produce new food/drinks					
2	You can take advantage of financial automation systems in your current business					
3	You can use social media to market the food/drinks you produce					
4	You can utilize digital platforms to communicate with customers					
5	You can use modern machines to make quality food/drinks					
6	You can utilize digital platforms to maximize business information					
7	You collaborate with larger partners to take advantage of new technology					
8	You work with partners to produce quality products					

4. Results and Discussion

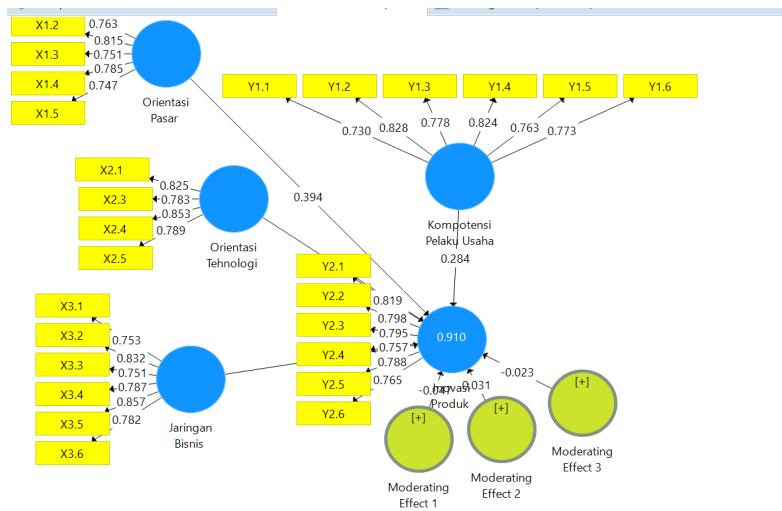


Fig.2: Measurement Model Analysis (Outer Model)

Based on Figure 2 shows that all variables have met the validity requirements with a loading factor value of all indicator values $> 0,7$. Then the next test can be carried out.

4.1. Construct Reliability Test

Table 7. Construct Reliability Test and Validity

Construct Reliability and Validity					Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extract...	Cronbach...	rho_A	Composi...	Average Variance Extracted (AVE)
Matrix												
Inovasi Produk	0.877	0.878	0.907	0.620								
Jaringan Bisnis	0.883	0.886	0.911	0.631								
Komptensi Pelaku Usaha	0.874	0.875	0.905	0.614								
Moderating Effect 1	1.000	1.000	1.000	1.000								
Moderating Effect 2	1.000	1.000	1.000	1.000								
Moderating Effect 3	1.000	1.000	1.000	1.000								
Orientasi Pasar	0.831	0.832	0.881	0.597								
Orientasi Teknologi	0.829	0.830	0.886	0.661								

It can be inferred from the study results in Table 7 above that the indicator variables can measure accurately because each latent variable's AVE value is more significant than 0.5, its composite reliability value is greater than 0.6, and its Cronbach's alpha value is more significant than 0,7.

4.2. Measurement Model Analysis (Inner Model)

Table 8. Coefficient of Determination (R2)

R Square		
Matrix	R Square	R Square Adjusted
Inovasi Produk	0.910	0.908

Using Table 8 above, it can be determined that the Product Innovation variable's adjusted R-Square value is 0.908, or 90.80% and that the remaining 9.20% is influenced by other variables not covered in this study.

4.3. Predictive Relevance (Q2)

The R-Square coefficient of determination and the Q2 value has the same meaning. If the Q-considerable fair value (Q2) is greater than 0, the model is predictively relevant; if it is less, it is not. In other words, the model works better with value judgement data when all Q2 values are more significant. Q2 may be answered as follows.

$$Q2 = 1 - (1-R^2_1)(1-R^2_2)...(R_n^2)$$

$$Q2 = 1 - (1-0,908)$$

$$Q2 = 1-(0,092)$$

$$Q2 = 0,908$$

Based on these results, the Q2 value is 0.908, so it can be concluded that the variables in this study, Product Innovation, Market Orientation, Technology Orientation, Business Networks, and Business Actors' Competence, contribute authenticity data in the existing structural model of 90.8%. The remaining 9.2 % needs to be developed apart from this research variable. Getting a Q2 of 0.908 proves that according to the purpose of the Q2 value on the research variable, it has a huge role and influence. Further researchers can carry out the remaining 9.2% and can use this research as a comparison for further research.

4.4. Effect Size (F2)

The effect size (F2) determines the model's goodness. Another goal is identifying whether the predictor variable has a mild, moderate, or significant impact on the structural level.

4.5. Hypothesis testing

Table 9. Direct Influence

Path Coefficients	
Matrix	Path Coefficients
	Inovasi Produk
Inovasi Produk	
Jaringan Bisnis	0.170
Kompotensi Pelaku Usaha	0.284
Moderating Effect 1	-0.047
Moderating Effect 2	0.031
Moderating Effect 3	-0.023
Orientasi Pasar	0.394
Orientasi Tehnologi	0.090

4.6. The Influence of Business Networks on Product Innovation

Business Networks directly have a positive effect (0.170) on Product Innovation. The more business networks increase, the more significant product innovation will be in Medan City Culinary MSMEs. This research is conducted by Porter (1985) in Market-Based View Theory, which states that for a company to be able to compete in its business environment, company management must pay attention to five driving factors, namely the threat of new players, competition between companies in the industry, the threat of substitute products, the strength of buyers and buyer power. This theory focuses on the market, which requires business people to innovate everything in their company. This theory refers to business people innovating products to compete competently.

By building business network access, business actors will gain knowledge and new markets to develop their business (Walter, 2006). In line with research by (Mpando & Sandada, 2015 Fang et al., 2016 Amentia et al., 2017 Syaifuddin et al., 2019 Jiang et al., 2019 Oberg, 2019 Etriya et al., 2019), which states that a strong network business will have a good impact on the company to carry out product innovation processes according to what the market wants. Product innovation has become the most crucial driving factor for companies to survive in an era of increasingly fierce competition (Zhou et al., 2017). Based on the description above, business networks positively and significantly affect MSME culinary product innovation in Medan City.

4.7. The Influence of Business Actor Competency on Product Innovation

Directly, Business Actor Competency has a positive effect (0.284) on Product Innovation. This means that the more the Competency of Business Actors increases, the more significant the Product Innovation will be in Medan City Culinary MSMEs. Product innovation will be faster and easier to form if business actors can be competent. With readiness and competence, business actors will try to think more innovatively and creatively in running their businesses (Van Kleef & Roome, 2007). Competency preparation certainly does not only come from internal factors. External factors carrying out cooperation from the external business sector are also needed to create a new, more innovative product (Behnam et al., 2018).

4.8. The Competence of Business Actors Cannot Directly Moderate Market Orientation towards Product Innovation

This means that Business Actor Competency cannot influence Market Orientation towards Product Innovation in Medan City Culinary MSMEs. Market orientation possessed by business actors must be maximized for the benefit of the development of the business by making innovations in the products being marketed. Having a market orientation will encourage business people to create product innovations so that they have more value than similar products owned by competitors. However, the Competency of Business Actors cannot necessarily influence market orientation toward Product Innovation because they must also pay attention to or consider the strengths of themselves or their subordinates. Because the ability of self and less competent teams will not influence the progress of products on the market (Yusrita et al., 2023).

The competence of business actors and their subordinates will cause product innovation to be successful or not in the market, or conversely, the product innovation may fail. Culinary business actors must be able to understand market conditions, especially knowing and understanding what the market wants regarding the products they produce. For the market orientation, they already have maximum impact if business actors need to gain the competence to carry out product innovations as desired by the market. Because of the market demands, the majority want something new without thinking about the ability to open a business (Usman et al., 2020). Therefore, market orientation cannot be moderated by the potential of business actors towards this business innovation. Thus, it can be concluded that it must be taken into account that Competency, of Business Actors, must be able to compete with the conditions around them; in this case, business actors cannot compete, so they cannot moderate the market orientation and culinary innovation of MSMEs in Medan City.

4.9. The Competence of Business Actors Can Directly Moderate Technology Orientation

The Competence of Business Actors Directly Moderates Technology Orientation (0.31) towards Product Innovation. This means that the competence of business actors can influence technology orientation towards product innovation in Culinary MSMEs in Medan City. Technology orientation is an absolute necessity for business people who want to innovate the products they offer. Technology is one of the right strategies for business people to get better results from product innovation. Therefore, business people must ensure that the way they view today's technology has changed massively, that the current technology is friendly and easy to use and provides excellent benefits for their business development. The use of technology in running a business has become part of investing in carrying out activities in order to gain future value for the company (Bailetti, 2012). Because business development will occur when business people can meet market needs and market needs will be served when the products offered match market needs, and products will match market needs after experiencing changes through innovation. For every product innovation that is carried out, the hope is that the resulting new product has more added value than other products.

Therefore, business people must have a good technology orientation while absorbing good self-competence when innovating their products because digital-based entrepreneurship will drive business progress (Giones & Brem, 2017). Thus, the competence of business people can be two different sides because when the competence of business people is good, with good technology orientation, product innovation will also be good. Product innovation is only good when violations by business actors are good, with a good technology orientation. From the description above, the competence of business people can significantly moderate the influence of technology orientation on MSME culinary product innovation in Medan City.

4.10. Competency of Business Actors Cannot Directly Moderate Business Networks on Product Innovation

This is because many business actors still utilize manual sales systems without taking advantage of current developments through moderation. This means that Business Actor Competency cannot influence Market Orientation towards Product Innovation in Medan City Culinary MSMEs. It is undeniable that today's business network is an invaluable asset for business people. With the owned business network, all business people will develop their business. Business people can utilize their business networks to obtain information about market needs, which can ultimately innovate their products according to market needs. With a business network, business actors can gain various knowledge to manage products properly (Arafah, 2016). An extensive business network can help business people carry out product innovation well. However, business people still have to have good competence so that the final product resulting from innovation is also good. The product will be different from what is expected when the business network is good, and the competence of the business people is also good. The product innovation can be guaranteed to be successful. Therefore, besides having a solid business network, business people must also have good competence in the products they market. So that the competence of business people can influence product innovation (Ngoasong, 2018). Based on the description above, the competence of business actors can significantly moderate the influence of business networks on the innovation of MSME culinary products in Medan City.

4.11. The Influence of Market Orientation on Product Innovation Directly

Market orientation has a positive effect on product innovation. Market orientation on product innovation has a positive effect (0.394) on product innovation. This means that the more Market Orientation increases, the more significant Product Innovation will be in Medan City Culinary MSMEs. This research results from research conducted by Maddux & Rogers (1983) that innovation will occur when information about ideas, practices, or objects is perceived as something that new information is appropriately communicated to all members of the social system. In line with research conducted by Ramirez et al. (2014), Salman (2015), Devara & Sulistyawati (2019), Sukartini et al. (2019), Ichwan &

Nursamsiah (2019), Duwalang & Santika (2020); Sucipto & Natsir, (2021); Rachmasari & Suprapti, (2022) stated that market orientation significantly influences product innovation carried out by company management. By understanding market needs, entrepreneurs will adjust what products suit marketing. Marketing greatly influences product innovation in trade (Lukas & Ferrell, 2000).

4. 12. The Influence of Technology Orientation on Product Innovation

Technology Orientation directly influences Product Innovation directly and positively (0.090). The greater the Technology Orientation, the more significant the Product Innovation will be in Medan City Culinary MSMEs. The results of this research are research conducted by Davis (1989), which states that an information technology system is designed to explain and make it easier for users to understand and comprehend everything the information technology provides. With technology-oriented facilities, it will be easier for product innovation to develop (Spanjol et al., 2012). The basic concept of the Technology Acceptance Model Theory is convenience and usefulness. In line with research conducted by Capon et al. (1990); Zhou et al. (2005), Zhou & Wu (2009); Liu & Su (2014); Deegahawature (2018); Haug et al. (2020) and Qalati et al., (2021) show empirically that the relationship between technology and innovation is positive and significant. From the description above, it can be assumed that technological orientation positively and significantly affects the innovation of MSME culinary products in Medan City.

5. Conclusion

This research explains directly that the four variables, namely, Market Orientation, Technology Orientation, Business Network, and Business Actor Competency, significantly influence Product Innovation in Medan City Culinary MSMEs. The Competency of Business Actors can Moderate the Technology Orientation toward Product Innovation. However, the Competency of Business Actors cannot Moderate the Technology and Business Network Orientation toward Product Innovation in Medan City Culinary MSMEs. Further research is needed by adding other variables to determine how to create actor competency to moderate technology orientation and business networks.

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