



Print ISSN: 1738-3110 / Online ISSN 2093-7717  
JDS website: <http://www.jds.or.kr/>  
<http://dx.doi.org/10.15722/jds.19.6.202106.29>

## Business Performance Determinants of Salted Fish Distribution in Kapuk During the COVID-19

Michael CHRISTIAN<sup>1</sup>, Dewi DEWI<sup>2</sup>, Glisina Dwinoor REMBULAN<sup>3</sup>, Eko Retno INDRIYARTI<sup>4</sup>, Suryo WIBOWO<sup>5</sup>, Yustinus YUNIARTO<sup>6</sup>

Received: April 10, 2021. Revised: May 18, 2021. Accepted: June 05, 2021.

### Abstract

**Purpose:** This study aims to measure whether market orientation, entrepreneurial orientation, and marketing capabilities affected the business performance of salted fish distribution in Kapuk warehouse, West Jakarta at the beginning of the COVID-19 pandemic. This prolonged and difficult pandemic has had an impact on the business of selling salted fish, challenging organisations' ability to maintain business performance. **Research design, data and methodology:** This study uses a PLS-SEM model approach using Smart PLS 3.0 and a questionnaire as the instruments. The conditions during the observation include 77 distributors who chose to keep doing business, and the research sample were measured by the number of distributors (business actors or people in charge). In this study, the variables of marketing capabilities, market orientation, and entrepreneurial orientation were used to analyse business performance. **Results:** Interestingly, the results of the study succeeded in explaining that during a pandemic market, both entrepreneurial orientation and marketing ability affected current business performance, although marketing ability remains an inconsistent mediator. **Conclusions:** This result serves as a reminder that surviving is the priority which must be focused on now, rather than crafting strategies to excel in competition that consume valuable effort and resources.

**Keywords :** Distribution, Business performance, Market orientation, Salted fish

**JEL Classification Code:** M30, M31, Q22, L26

## 1. Introduction

1. First and Corresponding Author. Lecturer, Management, Faculty of Social Sciences and Humanities, Universitas Bunda Mulia, Indonesia. Email: michaelchristianid@gmail.com
2. Second Author. Graduates, Management, Faculty of Social Sciences and Humanities, Universitas Bunda Mulia, Indonesia, Email: dewipgks@gmail.com
3. Third Author. Lecturer, Industrial Engineering, Faculty of Technology and Design, Universitas Bunda Mulia, Indonesia. Email: grembulan@bundamulia.ac.id
4. Fourth Author. Lecturer, Faculty of Economics and Business, Universitas Trisakti, Indonesia. Email: ekoretno@trisakti.ac.id
5. Fifth Author. Researcher and Doctoral Student, Psychological Science Doctoral Programme, Universitas Persada Indonesia YAI, Indonesia. Email: suryowibowojkt@yahoo.com
6. Sixth Author. Lecturer, Management, Faculty of Social Sciences and Humanities, Universitas Bunda Mulia Email: yyuniarto@bundamulia.ac.id

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

The emergence of the COVID-19 pandemic in Indonesia has had an impact on various business sectors, including the micro, small, and medium scale organisations (MSMEs) in the fisheries sector, especially those involving capture fisheries processing. The existence of social restrictions hampers the sale and distribution of fish. This causes an accumulation of fish raw materials in the fish storage warehouse. Worse, such accumulation can lead to a decrease in the quality of fish or even spoilage of fish stored for too long (Yapanto, Dahniar, Tanipu, & Suherman, 2020). The Food and Agriculture Organization of the United Nations has determined that COVID-19 has also had a global impact on this business sector, for example in Nepal (disruption to the breeding of several types of carp), the Philippines (problems with imported seeds), Cambodia (import restrictions affect the availability of domestic fish), Myanmar (labour reduction impacts shrimp companies and the sale and purchase of dried fish may stall), and Japan

(lower seafood prices and suspension of fish and seafood auctions) (FAO, 2020).

Large-scale social restrictions over a long period of time in Indonesia have caused a decrease in the availability of domestic fish. There are concerns that this could interfere with the adequacy of national fish consumption. According to the Ministry of Marine Affairs and Fisheries of the Republic of Indonesia (KKP), fish consumption figures in the last eight years have generally increased. Table 1 shows the national fish consumption figures for 2010–2017; on average per year during this period there was an increase in the national fish consumption rate of 2.67 kilogram per capita (kg/capita), or 6.25%. With the increasing trend of consumption (during which the highest increase was 3.40 kg/capita), a series of strategies are needed to meet the

national fish consumption needs, especially during a pandemic, which presents numerous obstacles. Prior to the pandemic in Indonesia, national fish consumption reached 54.5 kg/capita in 2019; in 2020, during the pandemic, it reached 56.39 kg/capita. Comparing the data in Table 1 with the consumption figures from the pandemic, it can be surmised that the limitations on fishing and the distribution of captured fish during the pandemic will very likely have a significant impact on national fishery production. This in turn can create an imbalance between national fish production and consumption. In addition, social campaigns to increase fish consumption to support increased body immunity during pandemic times are being presented with rising frequency.

**Table 1:** Fish Consumption & National Fisheries Production Figures 2010–2017

| Year | National Fish Consumption Rate (kg/capita) | Δ (kg/capita) | National Fishery Production (million tons) | Δ (million tons) |
|------|--|---------------|--|------------------|
| 2010 | 30.48                                      | -             | 5,384,418                                  | -                |
| 2011 | 32.25                                      | 1.77          | 5,714,271                                  | 329,853          |
| 2012 | 33.89                                      | 1.64          | 5,829,194.19                               | 114.923.19       |
| 2013 | 35.21                                      | 1.32          | 6,115,377                                  | 286,182.81       |
| 2014 | 38.14                                      | 2.93          | 6,484,346                                  | 368,969          |
| 2015 | 41.11                                      | 2.97          | 6,677,802.08                               | 193,456.08       |
| 2016 | 43.94                                      | 2.83          | 6,580,191                                  | -97,611.08       |
| 2017 | 47.34                                      | 3.40          | 6,891,936.2                                | 311,745.2        |

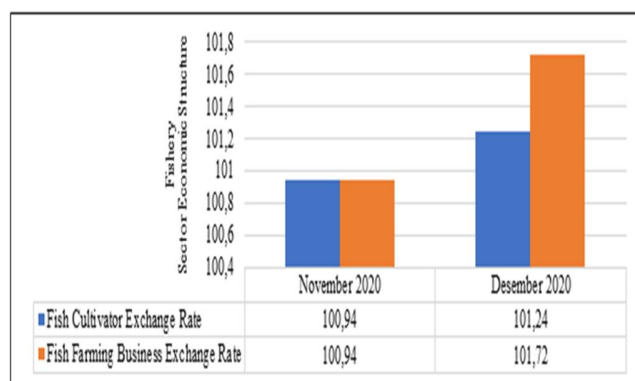
Note: processed data; Δ= changes per year; kg=kilogram; data for 2018–2020 is not yet available.  
Source: KKP (2020).

Indonesian fish catches are not only distributed whole but can also be distributed in the form of processed fish such as preserved fish, including salted fish, a home-based business with low costs (Martínez-Alvarez & Gómez-Guillén, 2013). As a processed fish product (Þórarinsdóttir, Bjørkevold, Arason, Mafis, & Álesund, 2010) with several preparation methods available (dry salting, brine salting, mixed salting, salting and chilling, salting by pressing, and quick salting) (Turan & Erkoyuncu, 2012), salted fish is also popular globally. Salted fish simply involves the fermentation of raw fish with stored salt for a certain period, and is widely used as a side dish to complement rice (Lee, Kung, Huang, Huang, & Tsai, 2016; Scoccianti, 2016). The length of storage for fish can vary, but is often 3–6 months (Lin, Liu, Lee, Hwang, & Tsai, 2012) in order to reduce the water activity of the fish muscles so that bacteria growth and enzymatic decay are inhibited (Ormanci & Colakoglu, 2015) or to prevent tissue dissolution (Lin et al., 2012). Under normal circumstances, the challenges encountered by home industries that still use traditional fish processing include questionable quality and nutritional value and the

relative absence of quality or safety guarantees for consumers (Latifah, Sofia, & Lilimantik, 2018). Such problems are common to most fish farming businesses, which may also face limited access to markets, the presence of predatory sales, or inadequate counselling (Njagi & Huka, 2013).

Meanwhile, in relation to business performance, Mengesha (2020) has stated that financial factors, the availability of facilities, and market structure significantly affect the fish value chain in Gamo Gofa, Ethiopia. The COVID-19 virus has damaged the fishing system and the sales chain for captured fish in Indonesia, especially in Jakarta, which is one of the largest fish production and distribution points in Indonesia, with fish production above 100,000 million tons in both 2018 and 2019. Business performance in the fisheries sector can reflect the economic structure of the fisheries sector, especially among fish cultivators. Based on data from the Central National Statistics Agency, at the end of 2020 (Figure 1), with a fair figure of 100, the fishermen exchange rate showed a good position in November and December, and the exchange rate of fish cultivators also showed good achievement in

November and December. These two business groups in the fisheries sector demonstrate the relationship between fishermen's expenditure and income. Expenditures that are greater than the income of fishermen will affect the purchasing power of fishermen for consumption and production. These results also illustrate that during this pandemic, the constraints on supply and demand in the fisheries sector began to be resolved. This is inseparable from the existence of people's purchasing power for fish needs and the needs of national fish cultivation production. This condition is also supported by continuous improvements in business efficiency and improvements in the main fish farming commodities.



**Figure 1:** Fishery Sector Economic Structure  
Source: KKP (2021).

Previous studies have conducted research on the impact of a pandemic on business performance, including the effects of the bird flu (H7N9) on poultry in China (Khokhar, Min, & Su, 2015; Lin et al., 2017), the collapse of the Somali livestock market due to the Rift Valley fever virus (Peyre et al., 2015), long-term unemployment due to the Nipah virus outbreak in Malaysia (Hosono, Kono, Ito, & Shirai, 2006; Ng et al., 2009), and deficit in the pork trade in Mexico due to the H1N1 influenza pandemic (Rassy & Smith, 2013). However, very few studies have yet focussed on the business performance during the pandemic of salted fish distribution. Moreover, small retailers tend to get less attention in the discussion of organisational and supply chain management (Hamister, 2012). In addition, the focus of existing research has largely been on the worst of the pandemic and its aftermath, while business performance in the early days of a pandemic, thus far largely ignored, is the focus of this study. Also, the current condition represents a different kind of pandemic, one which occurred rapidly and has had a lasting global impact. What must be considered is that the sale of catch fish such as salted fish is dependent on the number of fish caught by fishermen, which in turn depends on the climate (Guerreiro, Ladle, & Batista, 2017; Madhanagopal & Pattanaik, 2020).



Source: Google Earth (2021)

**Figure 2:** Salted Fish Warehousing Area, Kapuk, West Jakarta

Likewise, the distribution business area of salted fish in Kapuk, West Jakarta (as shown in Figure 2, with the yellow line showing the core salted fish warehousing area) cannot be separated from the impact of the COVID-19 pandemic on Indonesian industry. This salted fish warehouse in West Jakarta is one of the largest, completed, and modern warehouses for salted fish distribution in Jakarta. The explanations above form the basis of the importance of this research, especially in the fisheries business area of salted fish. Originality in this study lies in the development of the concept of measuring business performance in terms of the type of salted fish distribution business in the early days of the COVID-19 pandemic using aspects of the market, entrepreneurship, and marketing capabilities. As explained above, previous studies have focussed on measuring the impact of a pandemic on the type of business that is directly affected. In the current pandemic, SARS-Cov2 is a unique virus with a direct impact on humans that has slowly paralyzed the business sector and the economy of many countries. Thus, this study aims to measure the performance of the Indonesian salted fish distribution business at the beginning of the COVID-19 pandemic. This study will contribute to the measurement of business performance in impacted industries during different types of pandemics. It will also serve as an early warning regarding the business readiness of salted fish distribution in the face of the potential for a prolonged pandemic or subsequent pandemics.

## 2. Literature Review

### 2.1. Market Orientation

Entrepreneurs must be able to determine an appropriate market orientation, especially in the face of uncertain market conditions and difficulties such as the COVID-19

pandemic. The terms ‘market orientation’ and ‘marketing orientation’ are often conflated in the literature, as they both focus on business processes aimed at customers, competition, and the company’s internal management (Šályová, Táborecká-Petrovičová, Nedelová, & Ďaďo, 2015). Even though the terms have similarities, there are differences: ‘marketing orientation’ emphasises the processes to be carried out, such as the price strategy, packaging, and sales promotion used, while ‘market orientation’ emphasises the distribution strategy of product sales. Jyoti and Sharma (2012) defined market orientation as part of a business perspective that positions customers as the priority focus of the company’s goals. In achieving company goals, all business processes from production to distribution or product sales are included. Meanwhile, Na, Kang, and Jeong (2019) emphasised the concept of market orientation by using a measure of market information generation, changes in market information, and responses to market information. In their conception, the role of driving or inhibiting information (for example: the COVID-19 pandemic) in market passion is an important part of creating customer value. Kajalo and Lindblom (2015) measured market orientation using a form of market response that occurs, namely responsive action to competition, the role and satisfaction of customers in forming competitive strategies, evaluating customer satisfaction, market research (especially on competitors), and integrating business processes to maximise customer satisfaction. Thus, the absorption of appropriate market information can both direct and determine the market response that an organisation must undertake.

On the other hand, Hui, Ruizhi, and Wen (2011) described market orientation as an important part of organisational culture, namely with a focus on customer value, competitors, and coordination between teams within an organisation. Orientation towards a predetermined market means companies are serious about placing priority on remaining in that market and continuing to strive to create superior customer value (Ngo & O’Cass, 2012). Customer value in this case reflects an important aspect from the customer side, namely an understanding of customer orientation. Newman, Prajogo, & Atherton (2016) explained in their research that customer orientation and competitor orientation as part of market orientation affect innovation. Meanwhile, several studies have explained that market orientation affects business performance (Šályová et al., 2015; Jyoti & Sharma, 2012; Sisay, Verhees, & Trijp, 2017). Although this indicates a relationship between market orientation and business performance, the correlation is weak. The study of Kajalo and Lindblom (2015) did not use the financial aspects of the company to measure business performance; however, this is interesting and quite appropriate, especially considering that a

company’s financials are confidential and often too sensitive (Lingsiya, 2012) to be published. The results of this study alone explain that entrepreneurial orientation and marketing abilities affect a company’s business performance.

In fisheries, business performance can be measured using many variables. Fitriah et al. (2019) described the concept of business performance as a combination of organisational methods to achieve specified goals. Clay, Kitts, and Silva (2014) similarly used business indicators, namely financial feasibility (owner’s financial condition), distribution results (comparison of benefits and costs), stewardship (responsible use of resources), governance (transparency of making decisions for all stakeholders), and well-being (physical, mental, and psychological condition). If we look further, this measurement method considers the positive social and economic aspects. However, socio-economic development itself may become an obstacle to the use of these measurement indicators. Therefore, adjustments are still needed in using measurement indicators from time to time.

Thus, this study proposes the following hypotheses (H):

- H1:** Market orientation affects the business performance of salted fish distributors.
- H2:** Market orientation affects the marketing capabilities of salted fish distributors.

## 2.2. Entrepreneurial Orientation

Regardless of the challenges that an organisation will face in the future, the organisation always aims to survive the present moment while also achieving long-term competitive advantage. The COVID-19 pandemic has had a crippling impact on organisations, and the ability to adjust business strategies is an important asset to surviving such a critical period. Therefore, it is necessary in such conditions to re-evaluate the entrepreneurial orientation strategy planning that has been prepared previously, such as decision-making processes based on actions to innovate, create, or remake business models or to take risks that may ensure competitive aggression (Lumpkin & Dess, 2001). Decisions must be considered and adjusted as the situation requires; for example, from an old strategy to a hunt for new opportunities (Santos & Marinho, 2018). Critical points for implementing actions in an entrepreneurial orientation can be based on the measurement concepts used (Kajalo & Lindblom, 2015), such as being willing to take risks to develop, consistently presenting new products or services, and exerting effort to be superior in competition. In this case, competitive action to innovate in the form of strategy can be accomplished by taking risks. This is done to adjust the entrepreneurial orientation, and in turn has an impact on business performance (Kraus, 2013). Not only



does it have an impact on business performance, but Retnawati and Retnaningsih (2020) explained a further direction, in which entrepreneurial orientation has an impact on marketing ability to shape company excellence. Based on these explanations, this study poses the following hypotheses:

**H3:** Entrepreneurial orientation affects the business performance of salted fish distribution.

**H4:** Entrepreneurial orientation affects the marketing capabilities of salted fish distribution.

### 2.3. Marketing Capabilities

To stay afloat during conditions when buying and selling transactions are limited due to pandemic, organisations must be able to execute a formulated strategy, including in terms of marketing adjustments. Important aspects in maximising marketing capabilities include optimising the use of strategies for positive customer relationships, the ability to present new product variations, and the ability to provide attractive prices (Kajalo & Lindblom, 2015). This concept emphasises the importance of building good customer relationships so that, in the future and in difficult conditions such as those businesses face today, customer relationships that have been built over time can be used optimally as part of a targeted marketing strategy. Complementing this concept, Retnawati and Retnaningsih (2020) explained that marketing capability is part of a marketing process that is integrated with strategies from the marketing mix, market research, and market management. Thus, the following hypothesis is given:

**H5:** Marketing capabilities affect the business performance of salted fish distribution.

### 3. Methods

This study adapts the measurement concept of Kajalo and Lindblom (2015). Along with their measurement indicators, this study examines four additional variables: business performance (focus on increased sales, increased company revenue, good financial condition), market orientation (the responsiveness to the market, competitive strategies, customer satisfaction, competition, coordinating teams), entrepreneurial orientation (taking risks, being innovative, being proactive), and marketing capabilities (customer relationships, new product strategies, pricing strategies). The subjects in this study are business actors or people in charge of the salted fish distribution business in salted fish warehousing in Kapuk, West Jakarta. Due to the

COVID-19 pandemic and government policies related to social restrictions, many distributors did not operate during the pandemic, resulting in 84 distributors still operating. Therefore, the researchers decided to distribute questionnaires to all distributors who were still operating. From the questionnaires collected, 70 questionnaires (83.33%) were deemed eligible for analysis. This sample size meets the minimum size based on the Slovin formula, with an error of 5% (Adam, 2020). The Likert scale (1: strongly disagree to 5: strongly agree) was used in the questionnaire. The analysis of this research used PLS-SEM with SMART PLS 3.0; this analysis tool can be used to examine research with a small sample size (Benitez, Henseler, Castillo, & Schuberth, 2020; Hair, Hollingsworth, Randolph, & Chong, 2017; Willaby, Costa, Burns, MacCann, & Roberts, 2015; Wolf, Harrington, Clark, & Miller, 2013).

## 4. Results

### 4.1. Respondents' Socio-Demographic Distribution

Table 2 shows that men dominate the respondents in this study, followed by women. Not all businesses studied in this research are run by business owners; some are entrusted to the management of other actors. Such businesses are run by those who hold roles and responsibility within the salted fish distribution business, while the owner is often not present at the place of business or may even be totally disinterested in business operations. Meanwhile, some owners are still running their business operations. This study also explains that the fisheries industry is, in general, not attractive to the younger generation. This business is dominated by entrepreneurs aged 31–50 years, followed by those over 50. The backgrounds of entrepreneurs in this business are not determined by education, but rather by direct experience. Therefore, this business demands experience in the field, from finding a network for the availability of salted fish stocks and setting selling prices to managing relationships with customers. This business is not large, so it does not require many workers for daily business operations. This can be seen from our study as well, which shows that the number of workers used is still relatively small. Based on the results of sales, this MSME business is quite promising. The characteristics of the waters and seas surrounding the warehouse area are particularly relevant for the establishment of the salted fish distribution business; even in this area, the salted fish business has been established for many years. Meanwhile, businesses aged less than five years are relatively small.

**Table 2:** Respondents' Socio-Demographic Data

| Profile                  |                           | Frequency |       |
|--------------------------|---------------------------|-----------|-------|
|                          |                           | N         | %     |
| Gender                   | Male                      | 62        | 88.57 |
|                          | Female                    | 8         | 11.43 |
| Role                     | Owner                     | 17        | 24.28 |
|                          | People in charge          | 53        | 75.71 |
| Age                      | <31 years old             | 9         | 12.86 |
|                          | ≥31–50 years old          | 33        | 47.14 |
|                          | >50 years old             | 28        | 40    |
| Education background     | Elementary to high school | 40        | 57.14 |
|                          | Diploma level             | 6         | 8.57  |
|                          | Bachelor's degree         | 21        | 30    |
|                          | Master's degree           | 3         | 4.29  |
| Total manpower           | ≤ 5 worker(s)             | 54        | 77.14 |
|                          | ≥ 6–10 workers            | 12        | 17.14 |
|                          | ≥ 11 workers              | 4         | 5.72  |
| Sales per month (rupiah) | ≥ 26–208 million          | 27        | 38.57 |
|                          | ≥208 million              | 43        | 61.43 |
| Business age             | ≤5 years                  | 11        | 15.71 |
|                          | ≥ 6–10 years              | 46        | 65.72 |
|                          | >10 years                 | 13        | 18.57 |

of each variable. The reliability test refers to the Cronbach's Alpha (CA) and Composite Reliability (CR) >0.7, while the validity refers to the Outer Loading (OL) number >0.7 and Average Variance Extracted (AVE) >0.5 (Barati, Taheri-Kharameh, Farghadani, & Rásky, 2019; Memon & Rahman, 2014). In the first measurement, item two (MO2) in the market orientation (MO) variable did not meet the specified number, so it was eliminated and retested. In the second measurement, the results of this study (also shown in Table 3) succeeded in explaining that all variables and items met the conditions. In other words, all items and variables in this study are reliable and valid.

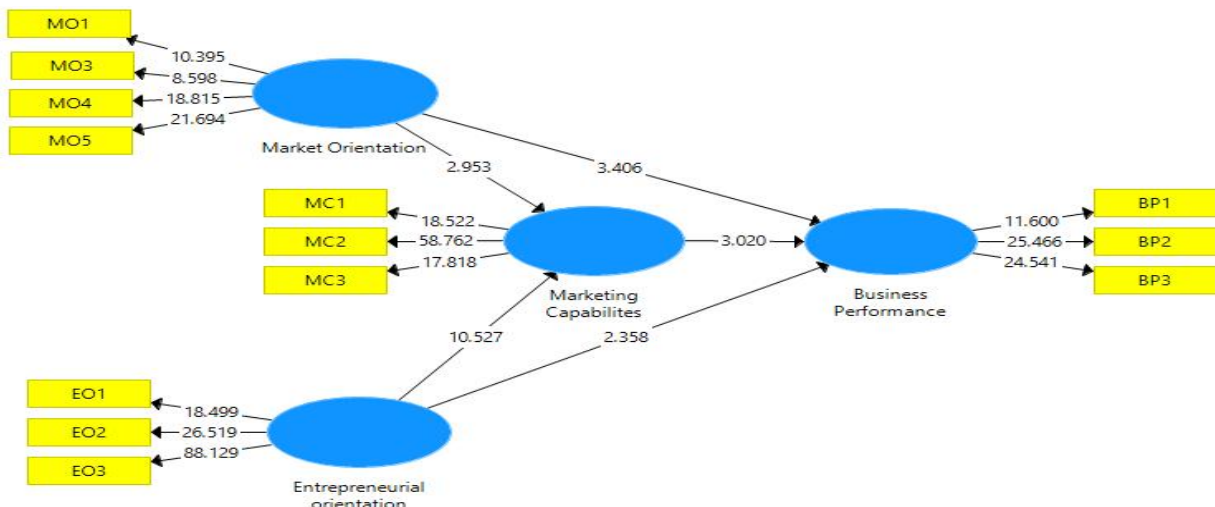
**Table 3:** PLS-SEM Measurement

| Variable - Item |     | MEAN  | SDV   | CA    | CR    | OL    | AVE   |
|-----------------|-----|-------|-------|-------|-------|-------|-------|
| MO              | MO1 | 4.539 | 0.391 | 0.789 | 0.861 | 0.713 | 0.610 |
|                 | MO3 |       |       |       |       | 0.704 |       |
|                 | MO4 |       |       |       |       | 0.824 |       |
|                 | MO5 |       |       |       |       | 0.871 |       |
| EO              | EO1 | 4.371 | 0.426 | 0.868 | 0.920 | 0.833 | 0.793 |
|                 | EO2 |       |       |       |       | 0.891 |       |
|                 | EO3 |       |       |       |       | 0.945 |       |
| MC              | MC1 | 4.476 | 0.403 | 0.784 | 0.875 | 0.784 | 0.701 |
|                 | MC2 |       |       |       |       | 0.908 |       |
|                 | MC3 |       |       |       |       | 0.815 |       |
| BP              | BP1 | 4.590 | 0.409 | 0.797 | 0.882 | 0.758 | 0.715 |
|                 | BP2 |       |       |       |       | 0.887 |       |
|                 | BP3 |       |       |       |       | 0.884 |       |

Note: MO = Market Orientation; EO = Entrepreneurial Orientation; MC = Marketing Capabilities; BP = Business Performance.

**4.2 PLS-SEM Measurement**

Table 3 shows the Mean and Standard Deviation (SDV)



**Figure 3:** PLS-Bootstrapping

Paths with a p-value >0.05 and t-statistic >1.96 significantly support the research hypotheses (Ali, Hilman, & Gorondutse, 2020; Otache, 2019). Figure 3 shows that these independent variables partially affect the business performance of salted fish distributors in Kapuk, West Jakarta. Furthermore, market orientation and entrepreneurial orientation partially affect marketing capabilities.

Table 4 shows the p-values and explains that market orientation has a significant effect on business performance. Thus, Hypothesis 1 is supported. Furthermore, market orientation has a significant effect on marketing capabilities. Thus, Hypothesis 2 is supported. The following results of this study support Hypothesis 3 – entrepreneurial orientation does have a significant effect on business performance. Entrepreneurial orientation was also found to significantly affect marketing capabilities, supporting Hypothesis 4. Furthermore, this study supports Hypothesis 5 – marketing capabilities do significantly affect business performance. Apart from the direct effect, this study also succeeded in explaining the different roles of marketing capabilities as mediating effects. Marketing capabilities succeeded in producing a significant mediating effect on the relationship between market orientation and business performance. However, in the relationship between entrepreneurial orientation and business performance, marketing capabilities do not play a significant role as mediating effects.

**Table 4:** Significance Test

| Path   | P-value | Remark            |
|--|---------|-------------------|
| Direct Effect  |         |                   |
| Market Orientation → Business Performance            | 0.001   | significant       |
| Market Orientation → Marketing Capabilities          | 0.003   | significant       |
| Entrepreneurial Orientation → Business Performance   | 0.019   | significant       |
| Entrepreneurial Orientation → Marketing Capabilities | 0.000   | significant       |
| Marketing Capabilities → Business Performance        | 0.003   | significant       |
| Indirect Effect                                      |         |                   |
| Entrepreneurial Orientation → Business Performance   | 0.003   | as a mediator     |
| Market Orientation → Business Performance            | 0.055   | not as a mediator |

## 5. Discussion

In Indonesia, the salted fish business is an MSME that is

made possible and sustained by support from the region and market tastes. Like in Minneriya, Sri Lanka, dried fish is one of the best business choices for small-scale businesses because it can provide large profits at low costs (Sugathapala, Suntharabharathy, & Edirisinghe, 2012). This study has succeeded in explaining the roles of market and entrepreneurial orientation, which partially affect the business performance and marketing capabilities of salted fish distribution. This is in line with the findings of Liao, Chang, Wu, & Katrichis (2011) and Huhtala, Sihvonen, Frösén, Jaakkola, & Tikkanen (2014), who explained that market orientation affects business performance. In light of the prolonged COVID-19 pandemic conditions, the salted fish distributors in this area are currently not prioritising the creation of a competitive strategy that can excel with competitors. Other aspects, such as the ability to investigate the market and respond to it and the continued prioritising of team performance to achieve customer satisfaction under limitations, are important processes that business actors must still carry out in the salted fish business. An industry's market orientation in the early stages of a pandemic (including a prolonged pandemic) must consider the strength of the business to survive.

While salted fish businesses are more cautious of risk-taking actions in pandemic conditions, exploring aspects of entrepreneurial orientation can support better business performance (Brouthers, Nakos, & Dimitratos, 2014). Pricing strategies can create a consumer stimulus, attractiveness, or public interest in buying salted fish during this pandemic. Creative and innovative sales methods can also support these endeavours. For example, the social limitations brought about by a pandemic can be overcome by changing marketing and sales channels using online media. Online sales media provide information about the availability of fish stocks and selling prices, which makes it possible to reduce the volatility of fish selling prices (Aura et al., 2019; Eucharia, Ubochioma, Ifeanyi, & Patience, 2016). This media can also be used to measure market response, especially consumers' interest and purchasing power during the pandemic.

Thus, both distributors and buyers are proactive in meeting their needs (Meyliana & Widjaja, 2015; Onyekachukwu, Sunday, Mohammed, & Yamata, 2019; Salladarré, Guillotreau, Debucquet, & Lazuech, 2018). In Indonesia, marketing and selling channels for salted fish using online media are still not widely used. This is because salted fish products themselves are better known as traditional local products, with sales overwhelmingly carried in conventional markets. The role of the marketplace in Indonesia can be widened again to add another type of group, namely fish, in which there are types of salted fish. Apart from selling to end users, on a distribution business scale the sales class can be made more

creative, for example by selling fish at auction (Kong, Huang, Luo, & Yen, 2018).

Marketing ability in the salted fish business today must be tested for the ability to function efficiently in difficult times. Marketing capabilities that can create competitive advantage as well as business performance are critical to success (Retnawati & Retnaningsih, 2020; Otnes, Ilhan, & Kulkarni, 2012; Fitriah et al., 2019). Leveraging loyal customers and optimising them to shape buybacks is one possible marketing strategy. Additionally, by complementing their strategies for marketing and sales channels through online media, salted fish distributors in this area can add delivery services that cost customers or even provide free services through the creation of a pricing strategy.

However, the unavoidable challenge is that it is difficult to obtain a steady supply of salted fish, while the accumulation of unsold stocks has forced salted fish businessmen seek new methods. Knowledge and weather aspects sometimes become obstacles for fishermen, although in fact this can be circumvented by maximising the use of information technology-based fishing support devices (Annune, Ezeani, & Okafor, 2014; Qureshi et al., 2014; Ijatuyi, Abiolu, & Olaniyi, 2016; Benard & Dulle, 2017; Islam, Islam, Bhadra, Sharmin, & Sardar, 2018). The field aspect of such media also allows distributors to work together to rotate existing stock while maintaining the supply of salted fish for buyers, as one of the more effective ways this can be done. Maintaining the availability of salted fish supply is more difficult during a pandemic which has affected nearly everything related to fishing, preservation, distribution, and marketing (Lubis, Siregar, Lubis, & Lubis, 2019). In addition, this long process can affect the quality of fish in an industry where profit and loss are very much dependent on the quality of the fish being sold. A good marketing system can support the creation of regular fish production and development in the fisheries sector itself (Salim et al., 2018). This at least complements the concept of Formentini and Romano (2016), in that the distribution of captured fish is very dependent on whether the existing supply chain process is good, and this process is closely related to the price of the fish being sold.

## 6. Conclusions, Limitations, and Suggestions

It is still unclear when the COVID-19 pandemic will truly end, presenting an ongoing challenge to the business of salted fish. The performance of the salted fish distribution business in Kapuk, West Jakarta is affected by factors such as understanding of market orientation, entrepreneurial orientation, and marketing capabilities. This business is one which requires qualified capabilities,

especially in the ability to manage distribution networks both for the provision of salted fish stocks to be sold as well as the ability to sell salted fish to retailers or end users. In addition, and from an external perspective, this business must also contend with obstacles in the climate of marine waters, which affects the availability of captured fish. Current conditions have made these external factors an even more difficult challenge. Salted fish business actors are trying to survive amid the uncertainty of conditions and an unclear business direction. The results of this study provide an initial signal for or detector of the performance of the salted fish sales business, not only for areas in Jakarta but also for other areas both in Indonesia and globally. In particular, this study suggests detectors in terms of the need to prepare in the form of strategies to survive or compete during prolonged difficult conditions, and especially in preparation for facing a pandemic, which may be even longer if a second wave or a new pandemic occurs. As this study dealt with limited samples in limited conditions, it is necessary to carry out further measurements in other phases of this pandemic to provide a fuller understanding of the character of the different conditions.

## References

- Adam, A. M. (2020). Sample Size Determination in Survey Research. *Journal of Scientific Research & Reports*, 26(5), 90–97. <https://doi.org/10.9734/JSRR/2020/v26i530263>
- Ali, G. A., Hilman, H., & Gorondutse, A. H. (2020). Effect of entrepreneurial orientation, market orientation and total quality management on performance Evidence from Saudi SMEs. *Benchmarking: An International Journal*, 27(4), 1503–1531. <https://doi.org/10.1108/BIJ-08-2019-0391>
- Annune, A. E., Ezeani, C. N., & Okafor, V. N. (2014). Information Sources Dissemination and Utilization Patterns of the Artisanal Fishery Sector in Benue State, Nigeria. *Advances in Research*, 2(12), 889–905.
- Aura, C. M., Nyamweya, C. S., Njiru, J. M., Odoli, C., Musa, S., Ogari, Z., ... Oketch, R. (2019). Using fish landing sites and markets information towards quantification of the blue economy to enhance fisheries management. *Fisheries Management and Ecology*, 00, 1–12. <https://doi.org/10.1111/fme.12334>
- Barati, M., Taheri-Kharamah, Z., Farghadani, Z., & Rásky, É. (2019). Validity and Reliability Evaluation of the Persian Version of the Heart Failure-Specific Health Literacy Scale. *International Journal of Community Based Nursing and Midwifery*, 7(3), 222–230. <https://doi.org/10.30476/IJCBNM.2019.44997>
- Benard, R., & Dulle, F. (2017). Application of ICT tools in communicating information and knowledge to artisanal fishermen communities in Zanzibar. *Knowledge Management & E-Learning*, 9(2), 239–253. <https://doi.org/10.34105/j.kmel.2017.09.014>
- Benitez, J., Henseler, J., Castillo, A., & Schubert, F. (2020). How



- to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information & Management*, 57(103168). <https://doi.org/10.1016/j.im.2019.05.003>
- Brouthers, K. D., Nakos, G., & Dimitratos, P. (2014). SME Entrepreneurial Orientation, International Performance, and the Moderating Role of Strategic Alliances. *Entrepreneurship Theory and Practice*, 39(5), 1–27. <https://doi.org/10.1111/etap.12101>
- Clay, P. M., Kitts, A., & Silva, P. P. da. (2014). Measuring the social and economic performance of catch share programs: Definition of metrics and application to the U.S. Northeast Region ground fish fishery. *Marine Policy*, 44, 27–36. <https://doi.org/10.1016/j.marpol.2013.08.009>
- Eucharia, E.-O. N., Ubochioma, C. J., Ifeanyi, O. E., & Patience, C. N. (2016). Roles of Information and Communications Technologies in Improving Fish Farming and Production in Rivers State, Nigeria. *Library Philosophy and Practice (e-Journal)*, 1445, 1–15.
- FAO. (2020). *How is Covid-19 outbreak impacting the fisheries and aquaculture food systems and what can FAO do*. Retrieved from <http://www.fao.org/3/cb1436en/cb1436en.pdf>
- Fitriah, A. W., Rosdi, S. N., Rosli, M. M., Mustapha, N., Aziz, Z. A., Ibrahim, W. M. Y. W., ... Yaacob, A. A. (2019). The Effects of Marketing Mix on Small Fish Farming Business Performance. *Revista Publicando*, 6(19), 1–16.
- Formentini, M., & Romano, P. (2016). Towards supply chain collaboration in B2B pricing A critical literature review and research agenda. *International Journal of Operations & Production Management*, 36(7), 734–756. <https://doi.org/10.1108/IJOPM-03-2015-0124>
- Google Earth. (2021). Salted fish warehousing area, Kapuk, West Jakarta. Retrieved April 3, 2021, from Google Earth website: <https://earth.google.com/web/search/Pergudangan+ikan+asin,+Jalan+Paternakan+II,+RT.6%2FRW.7,+Kapuk,+West+Jakarta+City,+Jakarta/@-6.14535587,106.76081591,6.19746017a,0d,60y,120.78972788h,89.43975488t,0r/data=CigiJgokCRFp0jtP4wxAEzI28ti4QxAGU6kfbkyq1hAIQA0LVEbq1hAlhoKFnY2VIRWRjE4SUxzYjRMTGZpanJYVGcQAg>
- Guerreiro, A. I. C., Ladle, R. J., & Batista, V. da S. (2017). Erratum to: Riverine fishers' knowledge of extreme climatic events in the Brazilian Amazonia. *Journal of Ethnobiology and Ethnomedicine*, 13(22). <https://doi.org/10.1186/s13002-017-0143-1>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442–458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Hamister, J. W. (2012). Supply chain management practices in small retailers. *International Journal of Retail & Distribution Management*, 40(6), 427–450. <https://doi.org/10.1108/09590551211230250>
- Hosono, H., Kono, H., Ito, S., & Shirai, J. (2006). Economic Impact of Nipah Virus Infection Outbreak in Malaysia. *11th International Symposium on Veterinary Epidemiology and Economics*, 324. Retrieved from [www.sciquest.org.nz](http://www.sciquest.org.nz)
- Huhtala, J.-P., Sihvonen, A., Frösén, J., Jaakkola, M., & Tikkanen, H. (2014). Market orientation, innovation capability and business performance. *Baltic Journal of Management*, 9(2), 134–152. <https://doi.org/10.1108/BJM-03-2013-0044>
- Hui, X., Ruizhi, W., & Wen, L. (2011). A Model of the Relationships among Market Orientation, Marketing Dynamic Capabilities and Performances of Service Enterprises. *8th International Conference on Service Systems and Service Management (ICSSSM)*, 1–5. <https://doi.org/10.1109/icsssm.2011.5959401>
- Ijatuyi, E. J., Abiolu, O. A., & Olaniyi, O. A. (2016). Information Needs of Fish Farmers in Osun-State, Nigeria. *Journal of Human Ecology*, 56(3), 309–317. <https://doi.org/10.1080/09709274.2016.11907068>
- Islam, M. S., Islam, M. S., Bhadra, A., Sharmin, S., & Sardar, M. R. R. (2018). Fish marketing system and livelihood status of fish traders in Ishwarganj Upazila under Mymensingh district. *International Journal of Fisheries and Aquatic Studies*, 6(6), 109–112.
- Jyoti, J., & Sharma, J. (2012). Impact of Market Orientation on Business Performance: Role of Employee Satisfaction and Customer Satisfaction. *Vision: The Journal of Business Perspective*, 16(4), 297–313. <https://doi.org/10.1177/0972262912460188>
- Kajalo, S., & Lindblom, A. (2015). Market orientation, entrepreneurial orientation and business performance among small retailers. *International Journal of Retail & Distribution Management*, 43(7).
- Khokhar, S. G., Min, Q., & Su, C. (2015). Bird flu (H7N9) outbreak and its implications on the supply chain of poultry meat in China. *The Journal of Applied Poultry Research*, 24, 215–221. <https://doi.org/10.3382/japr/pfv007>
- Kong, X., Huang, G. Q., Luo, H., & Yen, B. P. C. (2018). Physical-internet-enabled auction logistics in perishable supply chain trading: State-of-the-art and research opportunities. *Industrial Management & Data Systems*, 118(8), 1671–1694. <https://doi.org/10.1108/IMDS-10-2017-0486>
- Kraus, S. (2013). The role of entrepreneurial orientation in service firms: empirical evidence from Austria. *The Service Industries Journal*, 33(5), 427–444. <https://doi.org/10.1080/02642069.2011.622373>
- Latifah, N., Sofia, L. A., & Lilimantik, E. (2018). Financial Feasibility of Traditional Processing Industry: Study of Processing Dry Salted Fish of Tatah Mina Group, South Kalimantan. *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, 12(12), 19–23. <https://doi.org/10.9790/2402-1212011923>
- Lee, Y.-C., Kung, H.-F., Huang, C.-Y., Huang, T.-C., & Tsai, Y.-H. (2016). Reduction of histamine and biogenic amines during salted fish fermentation by *Bacillus polymyxa* as a starter culture. *Journal of Food and Drug Analysis*, 24, 157–163. <https://doi.org/10.1016/j.jfda.2015.02.002>
- Liao, S.-H., Chang, W.-J., Wu, C.-C., & Katrichis, J. M. (2011). A survey of market orientation research (1995–2008). *Industrial Marketing Management*, 40, 301–310. <https://doi.org/10.1016/j.indmarman.2010.09.003>
- Lin, C.-S., Liu, F.-L., Lee, Y.-C., Hwang, C.-C., & Tsai, Y.-H. (2012). Histamine contents of salted seafood products in Taiwan and isolation of halotolerant histamine-forming

- bacteria. *Food Chemistry*, 131, 574–579. <https://doi.org/10.1016/j.foodchem.2011.09.027>
- Lin, X., Zhang, D., Wang, X., Huang, Y., Du, Z., Zou, Y., ... Hao, Y. (2017). Attitudes of consumers and live-poultry workers to central slaughtering in controlling H7N9: a cross-sectional study. *BMC Public Health*, 17(517), 1–11. <https://doi.org/10.1186/s12889-017-4374-9>
- Lingesiya, Y. (2012). Identifying Factors to Indicate the Business Performance of Small Scale Industries: Evidence from Sri Lanka. *Global Journal of Management and Business Research*, XII(XXI).
- Lubis, A., Siregar, M. A., Lubis, M. S., & Lubis, A. H. (2019). Does Information Technology Help Fish Marketing? A Review for A Preferability Fish Marketing in North Sumatera, Indonesia. *International Journal of Science and Business*, 3(4), 105–115.
- Lumpkin, G. ., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance. *Journal of Business Venturing*, 16(5), 429–451. [https://doi.org/10.1016/s0883-9026\(00\)00048-3](https://doi.org/10.1016/s0883-9026(00)00048-3)
- Madhanagopal, D., & Pattanaik, S. (2020). Exploring fishermen's local knowledge and perceptions in the face of climate change: the case of coastal Tamil Nadu, India. *Environment, Development and Sustainability*, 22, 3461–3489. <https://doi.org/10.1007/s10668-019-00354-z>
- Martínez-Alvarez, O., & Gómez-Guillén, C. (2013). Influence of mono- and divalent salts on water loss and properties of dry salted cod fillets. *LWT - Food Science and Technology*, 53, 387–394. <https://doi.org/10.1016/j.lwt.2013.04.013>
- Memon, A. H., & Rahman, I. A. (2014). SEM-PLS Analysis of Inhibiting Factors of Cost Performance for Large Construction Projects in Malaysia: Perspective of Clients and Consultants. *The Scientific World Journal*, 1–9. <https://doi.org/10.1155/2014/165158>
- Mengesha, B. T. (2020). Determinants of Performance of Fish Value Chain: Evidences from Gamo Gofa Zone, Ethiopia. *Journal of Logistics Management*, 9(1), 7–16. <https://doi.org/10.5923/j.logistics.20200901.02>
- Meyliana, M., & Widjaja, H. A. E. (2015). E-commerce Implementation to Support Ornamental Fish Breeders in Indonesia. *International Conference on Information Technology Systems and Innovation (ICITSI)*, 16–19. <https://doi.org/10.1109/icitsi.2015.7437707>
- Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The Effect of Market Orientation on Performance of Sharing Economy Business: Focusing on Marketing Innovation and Sustainable Competitive Advantage. *Sustainability*, 11(729), 1–19. <https://doi.org/10.3390/su11030729>
- Newman, A., Prajogo, D., & Atherton, A. (2016). The influence of market orientation on innovation strategies. *Journal of Service Theory and Practice*, 26(1), 72–90. <https://doi.org/10.1108/JSTP-02-2015-0044>
- Ng, C. W., Choo, W. Y., Chong, H. T., Dahlui, M., Goh, K. J., & Tan, C. T. (2009). Long-term socioeconomic impact of the Nipah Virus encephalitis outbreak in Bukit Pelanduk, Negeri Sembilan, Malaysia: A mixed methods approach. *Neurology Asia*, 14(2), 101 – 107.
- Ngo, L. V., & O'Cass, A. (2012). In Search of Innovation and Customer-related Performance Superiority: The Role of Market Orientation, Marketing Capability, and Innovation Capability Interactions. *Journal of Product Innovation Management*, 29(5), 861–877. <https://doi.org/10.1111/j.1540-5885.2012.00939.x>
- Njagi, K. A., & Huka, G. (2013). Factors Affecting Profitability of Fish Farming Under Economic Stimulus Programme in Tigania East District, Meru County, Kenya. *IOSR Journal of Business and Management (IOSR-JBM)*, 15(3), 25–36. <https://doi.org/10.9790/487X-1532536>
- Onyekachukwu, N. G., Sunday, F., Mohammed, T., & Yamata, M. Y. (2019). Strategies Use by Smoked Fish Marketers in Kainji Lake Basin, Nigeria. *Journal of Agricultural Extension*, 23(1), 54–65. <https://doi.org/10.4314/jae.v23i1.5>
- Ormanci, H. B., & Colakoglu, F. A. (2015). Nutritional and sensory properties of salted fish product, lakerda. *Cogent Food & Agriculture*, 1(1008348), 1–13. <https://doi.org/10.1080/23311932.2015.1008348>
- Otache, I. (2019). The mediating effect of teamwork on the relationship between strategic orientation and performance of Nigerian banks. *European Business Review*, 31(5), 744–760. <https://doi.org/10.1108/EBR-10-2017-0183>
- Otnes, C. C., Ilhan, B. E., & Kulkarni, A. (2012). The Language of Marketplace Rituals: Implications for Customer Experience Management. *Journal of Retailing*, 88(3), 367–383. <https://doi.org/10.1016/j.jretai.2012.02.002>
- Peyre, M., Chevalier, V., Abdo-Salem, S., Velthuis, A., Antoine-Moussiaux, N., Thiry, E., & Roger, F. (2015). Systematic Scoping Study of the Socio-Economic Impact of Rift Valley Fever: Research Gaps and Needs. *Zoonoses and Public Health*, 62(5), 309–325. <https://doi.org/10.1111/zph.12153>
- Qureshi, B., Pathan, M., Chandio, F. A., Keerio, A., Buriro, R. A., & Chhachhar, A. R. (2014). Adoption of Information Communication Technology tools Among Fishermen. *Journal of American Science*, 10(7), 155–161.
- Rassy, D., & Smith, R. D. (2013). The economic impact of H1N1 on Mexico's tourist and pork sectors. *Health Economics*, 22(7), 824–834. <https://doi.org/10.1002/heec.2862>
- Retnawati, B. B., & Retnaningsih, C. (2020). Role of Entrepreneurial Orientation and Market Orientation on Competitive Advantage Through Marketing Performance: The Study at Marine-Based Food Processing Industry in Central Java. *Advances in Economics, Business and Management Research*, 135, 66–71. <https://doi.org/10.2991/aebmr.k.200410.011>
- Salim, S. S., James, H. E., Athira, N. R., Smitha, R. X., Shinu, A. M., & Meharoof, M. (2018). Assessment of Online Fish Marketing in Ernakulam District, Kerala. *Asian Journal of Agricultural Extension, Economics & Sociology*, 27(1), 1–8. <https://doi.org/10.9734/AJAEES/2018/42373>
- Salladarré, F., Guillotreau, P., Debucquet, G., & Lazuech, G. (2018). Some Good Reasons for Buying Fish Exclusively From Community-Supported Fisheries: The Case of Yeu Island in France. *Ecological Economics*, 153, 172–180. <https://doi.org/10.1016/j.ecolecon.2018.07.017>
- Šályová, S., Táborecká-Petrovičová, J., Nedelová, G., & Ďaďo, J. (2015). Effect of Marketing Orientation on Business Performance: A Study from Slovak Foodstuff Industry. *Procedia Economics and Finance*, 34, 622 – 629. [https://doi.org/10.1016/S2212-5671\(15\)01677-9](https://doi.org/10.1016/S2212-5671(15)01677-9)

- Santos, I. L. dos, & Marinho, S. V. (2018). Relationship between entrepreneurial orientation, marketing capability and business performance in retail supermarkets in Santa Catarina (Brazil). *Innovation & Management Review*, 15(2), 118–136. <https://doi.org/10.1108/INMR-04-2018-008>
- Scoccianti, C. (2016). Carcinogens: Identification of Carcinogens. In *Encyclopedia of Food and Health* (pp. 658–662). <https://doi.org/10.1016/B978-0-12-384947-2.00118-5>
- Sisay, D. T., Verhees, F. J. H. M., & Trijp, H. C. M. van. (2017). The influence of market orientation on firm performance and members' livelihood in Ethiopian seed producer cooperatives. *Agrekon Agricultural Economics Research, Policy and Practice in Southern Africa*, 56(4), 366–382. <https://doi.org/10.1080/03031853.2017.1409126>
- Sugathapala, R. M. N. S., Suntharabharathy, T. V., & Edirisinghe, U. (2012). Salt Based Dry Fish Processing and Marketing by Fishers of Minneriya Reservoir in Sri Lanka. *Tropical Agricultural Research*, 23(4), 357–362.
- Turan, H., & Erkoyuncu, İ. (2012). Salting Technology in Fish Processing. *Progress in Food Preservation*, 1, 297–312. <https://doi.org/10.1002/9781119962045.ch14>
- Willaby, H. W., Costa, D. S. J., Burns, B. D., MacCann, C., & Roberts, R. D. (2015). Testing complex models with small sample sizes: A historical overview and empirical demonstration of what Partial Least Squares (PLS) can offer differential psychology. *Personality and Individual Differences*, 84, 73–78. <https://doi.org/10.1016/j.paid.2014.09.008>
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample Size Requirements for Structural Equation Models: An Evaluation of Power, Bias, and Solution Propriety. *Educational and Psychological Measurement*, 73(6), 913–934. <https://doi.org/10.1177/0013164413495237>
- Yapanto M Lis, Musa Th Dahniar, Tanipu, F., & Suherman, S. P. (2020). The Impact of Covid-19 on Supply Chain Fisheries and Challenges by Fisherman in Indonesia. *Journal of University of Shanghai for Science and Technology*, 22(10), 1360–1365.
- Þórarinsdóttir, K. A., Bjørkevoll, I., Arason, S., Mátis, M., & Álesund, M. M. (2010). *Production of salted fish in the Nordic countries. Variation in quality and characteristics of the salted product*. 46:10(2002-1925), 1–46. Retrieved from <https://www.matis.is/media/matis/utgafa/46-10-Production-of-salted-fish-in-the-Nordic-countries.pdf>