# Market Innovation and Product Excellence in Indonesia: The Moderating Role of Product Innovation

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# Market Innovation and Product Excellence in Indonesia: The Moderating Role of Product Innovation

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**Abstract**

*This research aims to analyze the influence of entrepreneurship orientation, market orientation, technology orientation to product excellence with product innovation as moderating. This study followed a quantitative method using Structural Equation Modeling (SEM) with WarpPLS approach. This paper was conducted on the seaweed farmer community in Sidoarjo, East Java in Indonesia. In addition, the data were collected through questionnaires given to farmers while the sampling technique used was convenience simple random sampling. The results showed that entrepreneurship orientation, market orientation, technological orientation with product innovation have a positive influence on product excellence.*

***Keywords:*** *entrepreneurship orientation; market orientation; technology orientation; product excellence; product innovation.*

## 1. Introduction

The Indonesian government has sought to develop the potential of marine and fisheries resources through various policies, such as the development of Minapolitan conception. In the ministerial regulation, minapolitan is defined as a conception of maritime economic development and area-based fisheries based on integrated principles, efficiency, quality and acceleration. Thus, minapolitan area is an area with major economic activities that utilize, manage and cultivate marine and fisheries resources and have functional linkage with the surface system that developed to encourage local economic growth and grow regional competitiveness. In Indonesia, the largest seaweed producing areas include Bali, Papua, Maluku, Central Sulawesi, East Kalimantan, East Java, North Sumatera, and others.

East Java becomes one of the ten largest seaweed producing areas in Indonesia. With the potential of marine waters that are very suitable for the development of seaweed cultivation, it is not surprising if-then East Java transformed into one of the national seaweed production barns. The area of seaweed in East Java reaches more than 166 thousand hectares from the previous 158 thousand hectares. Demand for high export market against seaweed also spurs business actors in seaweed production center. For the type of Cottony, it is found in Sidoarjo Regency, Gresik Regency, Bangkalan District, Pamekasan Regency, Situbondo and Pacitan regency. Then, Sumenep Regency, Pasuruan Regency, Probolinggo Regency and Banyuwangi Regency while Gracillaria types are found in Sidoarjo, Pasuruan, Probolinggo and Situbondo Regency.

Sidoarjo is one of the coastal areas in East Java that has most abundant seaweed. Sidoarjo Regency consists of land area and ocean area with a land area of 714,245 km2 consisting of 18 sub-districts. Sidoarjo District is directly adjacent to Madura Strait and thus has the potential for development of fisheries sector. In supporting the development of fisheries sector has been defined Minapolitan area, consisting of 6 sub-districts namely Candi, Sidoarjo, Sedati, Waru, Buduran, and Jabon. Reviewed from the topography state terrain of Sidoarjo is at an altitude between 23-32 above sea level. This shows that Sidoarjo has a maritime potential that can be utilized in economic development so that it needs to be developed optimally as a source of genuine income of the region.

These abundant factors promote farmers and seaweed enterprises to improve product quality, production capacity and product innovation so that consumers would still choose the seaweed product. Through product innovation, an industry can create other products from the previous one or develop products that are a refinement of pre-existing products or create a completely new product. For consumers, product innovation is advantageous because consumers can consume innovative products to their liking. While for an industry, product innovation becomes very important to do because the industry is a step ahead of its competitors. In addition, product innovations can be influenced by several factors, one of which is an entrepreneurial orientation. Kumalaningrum (2012) stated that firms with strong entrepreneurial orientation will have the ability to innovate stronger than any other company. In this dynamic economic environment, entrepreneurial orientation is clearly essential for the continuity of an industry in the innovation of its products. (Beaver & Prince, 2002) argued that entrepreneurship, indicating that risk taking is positively influential towards the development of new product performance.

Other factors that affect product innovation is market orientation. Market orientation is quite crucial for an industry as tight as competition and consumer desires that increase innovative products. Market orientation for industry has become a business culture in it. With the current situation, an industry mindset should always improve the creativity of the products produced in creating superior value for consumers. Usvita (2015) mentioned that the market orientation as an organizational culture will be fundamental to the basic needs of external, desire and market demand. Pelham and Wilson (1995) defined

company performance can be measured through sales growth and market portion. This is the benchmark of company performance to be more optimal. Menon et al. (1999) added that the market orientation is influential on competitive advantage, corporate culture that emphasizes the importance of the company to pay attention to market (market-oriented) will lead to strengthening the company's competitive advantage. Akimova (2000) revealed that companies implementing market orientation have the advantage in terms of customer knowledge and these advantages can be used as a source for creating Products to suit customers' wishes and needs.

Entrepreneurial orientation has an association with opportunities, the courage to risk and the decision to act on the leaders of the Organization (Knight & Kavusgil, 2004). Entrepreneurship orientation is a company's value system that later determines the direction of the company's movement or strategy. Similarly, Akimova (2000) mentioned that, companies implementing market orientation have the advantage in terms of customer knowledge and these advantages can be used as a source for creating Products to suit customers' wishes and needs. Entrepreneurial orientation has an association with opportunities, courage to risk and the decision to act on the leaders of the organization (Knight & Kavusgil, 2004). Entrepreneurship orientation is a company's value system that later determines the direction of the company's movement or strategy (Tawas & Djodjobo, 2014).

The implementation of new technology is the deciding factor in new product development. The technological excellence of a product can attract consumer buying to make purchases on new products that are produced. By using sophisticated technology, the company can make its products to be better or more innovative (Satata, 2006). Hartini (2012) remarked that innovation is starting or introducing something new. Product innovation is something that can be seen as functional progress of the product that can bring the product a step ahead compared to the competitor product. If the product has an advantage that is seen as an added value for consumers. The development of new and more effective products is often the defining success and survival of a company, however, it is not an easy project. The development of new products requires effort, time and capabilities, including the magnitude of risk and failure costs. Setiawan (2012) explained that the competitive advantage of a product is one of the determinants of the success of new products (up to an innovation product should have an advantage over other products. Gatignon and Xuereb (1997); Bruno (2019) presented the characteristics of innovation that is product excellence, product cost and product credibility. Product innovation can fail simply for reasons of not offering a unique design or misestimate of the wishes and needs of customers. Product innovation should be able to provide added value compared to similar products (product excellence) so that it can make the company has an advantage over its competitors.

Competitive advantage is the result of implementing a strategy that leverages the company's various resources (Menon et al., 1999; Sugiyarti, 2015). Unique expertise and assets are seen as the source of competing for excellence. The ability of the company to develop the expertise of its employees well will make the company excel in the application of its strategy and difficult to emulate by its competitors. Unique assets are real resources that companies use to run their strategy. The merger between employee skills development and unique assets is able to support the industry to be superior and have a difference with other sectors. An industry can be said to be superior to its competitors if the resulting products have added value, such as uniqueness, not easily imitated, rarely found, not easily replaced, and competitive prices.

Generally, consumers are more interested in innovative products. Thus, product innovation can be used as one of the sources of competing excellence of an industry. In this study, seaweed production that had only been exported in raw form and sold in the factory as the base material for the manufacture of agar and cosmetics by farmers and traffickers and marketers of seaweed was processed into various typical food products from Sidoarjo such as seaweed crackers, seaweed noodles, seaweed ice cream that can be used by tourists. As the high demand for diverse seaweed consumers experienced innovation over time. Based on the previous background, this study is intended to understand how the influence of entrepreneurial orientation, market orientation and technological orientation affect the competitive advantage of product innovation as its intervening variables.

## 2. Method

This study applied a quantitative method using Structural Equation Modeling (SEM) with the WarpPLS approach to examine the relationship between variables and understand the moderating role of product innovation. This research was conducted in six sub-districts, namely Candi, Sidoarjo, Sedati, Waru, Buduran, and Jabon Sidoarjo regency. The data were collected through questionnaires given to farmers. The sampling techniques used are convenience simple random sampling which is the retrieval of sample members from the population conducted randomly regardless of the strata in the population. The sample is about 60 seaweed farmers who belong to the group of processing seaweed and marketers in Sidoarjo. The data analysis uses Structural Equation Modeling (SEM) with the WarpPLS approach. In more detail, the framework of research is illustrated in Figure 1.

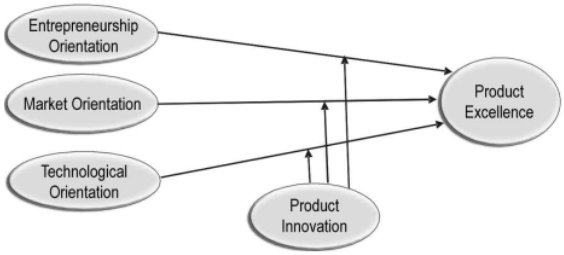


*Figure 1.* The Framework of the Research

## 3. Results

### 3.1. The Impact of Entrepreneurial Orientation to Product Excellence

| Relationships between variables (explanatory variables → response variables) | | Line coefficient | *p-value* | Description |
|---|---|---|---|---|
| Entrepreneurial orientation ($X_1$) | Product Excellence (Y) | -0.136 | .070 | Weakly Significant |

*Table 1.* Relationships between variables

$H_1$: There is an impact of entrepreneurial orientation (X1) to product excellence (Y).

Entrepreneurial orientation ($X_1$) to product Excellence (Y) with a line coefficient of -0.136 and p-value of 0.070. Given that p-value is smaller than 0.1 it is said to be weakly siginificant, then the hypothesis is accepted. The path coefficient marked negative (-0.136) indicates that the better the entrepreneurship orientation then the product excellence is decreasing.

### 3.2. The influence of Entrepreneurship Orientation to Product Excellence (Y) moderated by Product Innovation

| Relationships between variables | | | *Line coefficient* | *p-value* | Description |
|---|---|---|---|---|---|
| **Explanatory variables** | **Moderation variables** | **Response variables** | | | |
| Entrepreneurial orientation ($X_1$) | Product innovation ($X_4$) | Product Excellence (Y) | 0.283 | 0.001 | Moderate |

*Table 2.* Relationships between variables

$H_2$: There is an entrepreneurial orientation influence ($X_1$) to Product Excellence (Y) moderated product innovations ($X_4$). The path coefficient of entrepreneurship orientation ($X_1$) towards product Excellence (Y) moderated innovation product ($X_4$) by 0.283 with p-value = 0.001, is said to be highly significant, so $X_4$ is a moderation variable. The positively marked coefficient (0.283) means that product innovation can strengthen the impact of entrepreneurial orientation on product excellence.

### 3.3. The Effect of Market Orientation on Product Excellence

| Relationships between variables (explanatory variables → response variables) | | *Line coefficient* | *p-value* | Description |
|---|---|---|---|---|
| Market Orientation ($X_2$) | Product Excellence (Y) | 0.220 | 0.009 | Highly Significant |

*Table 3.* Relationships between variables

$H_3$: There is market orientation influence ($X_2$) on product excellence (Y). Market Orientation ($X_2$) on product Excellence (Y) with a line coefficient of 0.220 and p-value = 0.009. Given that p is smaller than 0.01 it is revealed to be highly significant, therefore, the hypothesis is accepted. The column coefficient marked positively (0.220) indicates that the better the market orientation then the product excellence is increasing.

### 3.4. The Effect of Market Orientation on Product Excellence moderated by Product Innovation

| Relationships between variables | | | *Line coefficient* | *p-value* | Description |
|---|---|---|---|---|---|
| **Explanatory variables** | **Moderation variables** | **Response variables** | | | |
| Market orientation ($X_2$) | Product innovation ($X_4$) | Product Excellence (Y) | -0.417 | 0.001 | Moderation |

*Table 4* Relationships between variables

$H_4$: There is a market orientation influence ($X_2$) on product Excellence (Y) moderated product innovation ($X_4$). The line coefficient of influence of market orientation ($X_2$) on product Excellence (Y) moderated product innovation ($X_4$) of -0.417 with p-value = 0.001, is said to be highly significant, so that $X_4$ is a moderation variable. Path coefficient marked negative (-0.417) means product innovation can weaken the effect of market orientation on product excellence.

### 3.5. The Effect of Technology Orientation on Product Excellence

| Relationships between variables (explanatory variables → response variables) | | *Line coefficient* | *p-value* | Description |
|---|---|---|---|---|
| Technological orientation ($X_3$) | Product Excellence (Y) | 0.180 | 0.026 | Significant |

*Table 5.* Relationships between variables

$H_5$: There is a technological orientation effect ($X_3$) on product Excellence (Y) Technology Orientation ($X_3$) on product Excellence (Y) with a line coefficient of 0.180 and p-value = 0.026. Given that p is smaller than 0.05 it is said to be significant, so the hypothesis is accepted. The column coefficient marked positively (0.180) indicates that the better the orientation of technology then the product excellence is increasing.

### 3.6. The Influence of Orientation Technology and Product Excellence moderated by Product Innovation

| Relationships between variables | | | *Line coefficient* | *p-value* | Description |
|---|---|---|---|---|---|
| **Explanatory variables** | **Moderation variables** | **Response variables** | | | |
| Technological orientation ($X_3$) | Product innovation ($X_4$) | Product Excellence (Y) | 0.300 | 0.001 | Moderation |

*Table 6.* Relationships between variables

$H_6$: There is a technological orientation influence ($X_3$) against product Excellence (Y) moderated innovation products ($X_4$). The line coefficient of influence orientation technology ($X_3$) on product Excellence (Y) moderated innovation product ($X_4$) by 0.300 with p-value < 0.001, is said to be highly siginificant, so that $X_4$ is a moderation variable. The positively marked coefficient (0.300) means product innovation can strengthen the impact of technology orientation on product excellence.

## 4. Discussion

The results of this research proved that the better entrepreneurship orientation, then product excellence is decreasing. It is because management dare to take risks, and try to create a new product precede the tastes of consumers, besides always make use of market opportunities, creating a unique product and has distinctive characteristics of its competitors, Introducing the new products such as seaweed ice cream, seaweed sticks, noodles, nori, and paper crackers from seaweed. Hence, there is no effect on the competitive advantages between farmers and the marine-processing and marketers. It is to win the competition in the market seize. Then the market orientation becomes an activity that must be done by an industry. Market orientation consists of three components namely customer orientation, competitor orientation and coordination between functions. These three components if conducted by responding to the needs and desires of customers in a competitor's market, it will create a superior value for the customer that can lead the competitive advantage in the midst of competition. Thereby, product innovation can affect the competitive advantages of farmers processing and marketing of seaweed in Sidoarjo, East Java, Indonesia. Innovation is a variable mediator between the market orientation and the performance of the company (Olavarrieta & Friedmann, 2008). Altuntas et al. (2013) stated that innovation is highly dependent on market orientation and will play a role as a mediator to encourage organizational performance.

SMEs must invest in product innovations to gain a competitive edge. The emergence of product innovations is essentially meeting the needs, desires, and demands of consumers so that product innovation is one that can be used as a competitive advantage for the industry. Research conducted by Tung (2012); Killa (2014); Utaminingsih (2016) found that innovations have a positive effect on performance. Industries that have been innovating products value consumers more than their competitor products. Thereby, innovation increasingly has significance not only as a tool to maintain the survival of products and the development of the industry but also to excel in the competition.

Therefore, it can be said that the more often the SMEs to innovate the product will further increase the value of competitive advantage of SMEs. The results of this study is supported by previous study of Prakoso (2005) which remarked that the influence of positive and significant innovation to marketing performance or in other words that by the effectiveness of the company's innovations one of them through the product then the company can improve performance. This is in accordance with the theory of Saladin (2010) which stated that consumers want new products (innovations) so that consumers consume more goods. The research also proves the prior research conducted by Ceccucci et al. (2010) revealed that product innovations have significant effect on the intention of buying. Indeed, a study by Shiau (2014) also stated that product innovations significantly affect the buying intent and the brand image as its modernist variables.

## 5. Limitations and Future Research

The purpose of this research is merely to seek influence so that if there are one or two fit criteria fulfilled, therefore the research can be continued. In the future, SMEs must be more creative and dynamic in facing global market. For this matter, SMEs should be able to master information technology in improving the quality and quantity of production.

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## References

[1] Akimova, I. (2000). Development of market orientation and competitiveness of Ukrainian firms. *European Journal of Marketing*, 34(9/10), pp. 1128-1148.

[2] Altuntas, G., Semercioz, F. and Eregez, A. (2013). Linking Strategic and Market Orientations to Organizational Performance: The Role of Innovation in Private Healthcare Organizations. *Procedia-Social and Behavioral Sciences*, 99(9), pp. 413-419

[3] Beaver, G. and Prince, C. (2002). Innovation, Entrepreneurship and Competitive Advantage in the Entrepreneurial Venture. *Journal of Small Business and Enterprise Development*, 9(1), pp. 28-37.

[4] Bruno, L. (2019). Korelasi Inovasi Produk Dengan Keputusan Pembeli Dalam Membeli Produk Sophie Paris Di Kabupaten Jember Siti. *Journal of Chemical Information and Modeling*, 53(9), pp. 1689-1699.

[5] Ceccucci, W., Peslak, A. and Sendall, P. (2010). An Emperical Study of Behavioral Factors Influencing Text Messaging Intention. *Journal of Information Technology Management*, 21(1), pp. 16-34.

[6] Gatignon, H., & Xuereb, J. M. (1997). Strategic Orientation of the Firm and New Product Performance. *Journal of Marketing Research*, 34(1), pp. 77-90.

[7] Hartini, S. (2012). Peran Inovasi: Pengembangan Kualitas Produk dan Kinerja Bisnis. *Jurnal Manajemen Dan Kewirausahaan*, 14(1), pp. 82–88

[8] Killa, M.F. (2014). Effect of Entrepreneurial Innovativeness Orientation, Product Innovation, and Value Co-Creation on Marketing Performance. *Journal of Research in Marketing*, 2 (3), pp. 198-204.

[9] Knight, G.A. and Cavusgil, S. T. (2004). Innovation, Organizational Capabilities, and The Born-Global Firm. *Journal of International Business Studies*, 35(2), pp. 124-141.

[10] Kumalaningrum, M.P. (2012). Lingkungan Bisnis, Orientasi Kewirausahaan, Orientasi Pasar, Dan Kinerja Usaha Mikro, Kecil Dan Menengah. *Jurnal Riset Manajemen dan Bisnis*, 7(1), pp. 45-59.

[11] Menon, A., Bharadwaj, S.G., Adidam, P.T. and Edison, S.W. (1999). Antecedents and consequences of marketing strategy making. *Journal of Marketing*, 63(2), pp. 18-40

[12] Olavarrieta, S. and Friedmann, R. (2008). Market Orientation, Knowledge-related Resources and Firm Performance. *Journal of Business Research*, 61(6), pp. 623-630.

[13] Pelham, A.M. and Wilson, D.T. (1995). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of small-firm performance. *Journal of the Academy of Marketing Science*, 24(1), pp. 27-43.

[14] Prakoso, B. (2005). Pengaruh Orientasi Pasar, Inovasi Dan Orientasi Pembelajaran Terhadap Kinerja Perusahaan Untuk Mencapai Keunggulan Bersaing (Studi Empiris Pada Industri Manufaktur Di Semarang). *Jurnal Studi Manajemen dan Organisasi (JSMO)*, 2(1), pp. 35-57.

[15] Saladin, D. (2010). *Manajemen Pemasaran*. Bandung: Linda Karya.

[16] Satata, A. (2006). Analisis Pengaruh Orientasi Strategik, Teknologi Informasi Pemasaran Terhadap Inovasi Produk dan Dampaknya Terhadap Pencapaian Keunggulan Bersaing (Studi Empiris Pada Industri Asuransi Di Jawa Tengah) (Doctoral dissertation, Program Pasca Sarjana Universitas Diponegoro).

[17] Setiawan, H. (2012). Pengaruh Orientasi Pasar, Orientasi Teknologi dan Inovasi Produk Terhadap Keunggulan Bersaing

Usaha Songket Skala Kecil di Kota Palembang. *Jurnal Orasi Bisnis*, 8, pp. 12-19.
[18] Shiau, H. (2014). The Impact of Product Innovation on Behavior Intention: The Measurement of the Mediating Effect of the Brand Image of Japanese Anime Dolls. *Journal Antropologist*, 17(3), pp. 777-788.
[19] Sugiyarti, G. (2015). Membangun Keunggulan Bersaing, Produk melalui Orientasi Pembelajaran, Orientasi Pasar dan Inovasi Produk (Studi Empiris Pada Industry Pakaian Jadi Skala Kecil Dan Menengah Di Kota Semarang). *Serat Actya - Jurnal Ilmiah Untag Semarang*, 5, pp. 111-123.
[20] Tawas, H. and Djodjobo, C. (2014). Pengaruh Orientasi Kewirausahaan, Inovasi Produk, dan Keunggulan Bersaing Terhadap Kinerja Pemasaran Usaha Nasi Kuning Di Kota Manado. *Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 2(3), pp. 1214-1224.
[21] Tung, J. (2012). A Study of Product Innovation on Firm Performance. *The International Journal of Organizational Innovation*, 4(3), pp. 83-97
[22] Usvita, M. (2015). Pengaruh Orientasi Kewirausahaan Dan Orientasi Pasar Terhadap Kinerja Pemasaran Melalui Keunggulan Bersaing Sebagai Variabel Intervening (Survey Pada UKM Pangan Dinas Perindagtamben Kota Padang). *E-Jurnal Apresiasi Ekonomi*, 3(1), pp. 31-37.
[23] Utaminingsih, A. (2016). Pengaruh orientasi pasar, inovasi, dan kreativitas strategi pemasaran terhadap kinerja pemasaran pada UKM kerajinan rotan di desa Teluk Wetan, Welahan, Jepara. *Media Ekonomi dan Manajemen*, 31(2), pp. 77-87.

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