

# The Effect Of Disruptive Era And New Product On Innovative Product Launches

**Yusuf Amrozi, Dwiky Arfiansyah Nugroho, Rike Excella Putri**

Universitas Islam Negeri Sunan Ampel Surabaya, Surabaya, Indonesia  
yusuf.amrozi@uinsby.ac.id; h06218012@unisby.ac.id; h76218041@uinsby.ac.id

**Joko Suyono**

Narotama University, Surabaya, Indonesia  
joko.suyono@narotama.ac.id

Corresponding Author: yusuf.amrozi@uinsby.ac.id

## Abstract

The existence of the disruptive era has made many new products launched tend to be innovative due to market competition that pursues excellence. The purpose of this study is to determine and explain the effect of the disruptive era on innovative product launches. This study conducted sampling with a simple random sampling approach and used data collection techniques through a questionnaire method that was given to the general public who met the criteria of respondents, by determining the criteria for respondents, namely the wider community who was more than fifteen years old and using product or services. The variables used in this study are the disruptive era as variable X1, new products as variable X2, and innovative product launches as variable Y. The results of the analysis using the linear regression method show that there is a significance between the disruptive era variable (X1) and the innovative product variable (Y) where the value of sig is  $0,000 < 0,05$  and the value of  $t_{count}$  is  $4,120 > t_{table}$  is 2030 which shows that the disruptive era has an effect on the launch of innovative products, then the test results of the analysis of new product variables (X2) have a significance for the innovative product launch variable (Y) shows the value of sig is  $0,000 < 0,05$  and the value of  $t_{count}$  is  $7,840 > t_{table}$  is 2030 shows that the existence of a new product also has an influence on the launch of innovative products.

## Keywords

Disruptive era, new products, innovative product launches

## 1. Introduction

Along with the changing times, old or new companies are competing continuously not only because of the very competitive conditions, but also because of the demands for increasingly advanced technological developments. technological developments are accompanied by human thinking that is increasingly effective and efficient in all respects. Effective and efficient thinking certainly makes technological developments increasingly and very much-needed. The technological capabilities will be more advanced because those that are able to integrate traditional old-fashioned transformations become universal.

The digital world has a major influence on the era of globalization in the ability to develop increasingly new technology to replace the old ways that are less efficient so that there are many innovations being developed. The technological developments application is free to do and enforced by all corporate companies, both beginner and old companies. Company competition in the current era of globalization requires companies to act quickly and precisely in facing this competition.

Today, Indonesians often hear about the emergence of actors in the business world who disturb the existence of old players. Basically, these new competitors have unique advantages when compared to incumbent actors. There are many examples, for example those that are still pros and cons, namely the phenomenon of online motorcycle taxis that have replaced conventional taxis. Another example is the online hotel booking technology that replaces

conventional bookings.

The various existing phenomena have clearly occurred not without cause. *First*, technological developments have a profound influence on the direction of change and innovation. *Second*, the high need for efficiency and effectiveness causes producers to make adequate innovations. At this level it can be said that the adage "there is no smoke if there is no fire" applies in the context of the emergence of new actors with various innovations. The need for efficiency is a strong reason how producers must innovate to enter the market.

Innovations that can be in line with technological developments will certainly change the mindset of the wider community towards real aspects. Any technology or innovation applied in different ways by different stakeholders, whose understanding guides understanding of potential problems and solutions (Leonardi, 2011). This will impact on increasing business competitiveness.

If we look closely, the various innovations brought by the new competitors often cause disputes with the old competitors. The use of technology provides maximum service at an efficient cost. This factor certainly causes consumers to shift to new producers who bring this innovation. Not infrequently, new generation of entrepreneurs who feel disturbed do protests and demonstrations so that new competitors are prohibited from operating. In fact, it is not uncommon for clashes to occur during these protests.

City transportation drivers throughout Tangerang have demonstrated against the existence of online transportation in their area. The demonstrators also intercepted and took the helmets of passing online motorcycle taxi drivers. The incident took place on Jl. Satria Sudirman, Tangerang, on Wednesday (8/3/2017) at around 10:20 WIB. At that time an online motorcycle taxi driver was reading passengers and passing by at the demo location. Suddenly the demonstrators immediately shouted and chased the online motorcycle taxi. Passengers who are riding are asked to get off, then their helmets are taken. Then online motorcycle taxi drivers were also told to leave the location (Ahmad Wahid in Detiknews, 2017).

The situation clearly shows a conflict of interest between old competitor entrepreneurs and new players with technological innovations that make it easier. The various conflicts that have occurred are not preventable. The innovation brought by the newcomer is like a double-edged knife. First, this innovation is able to facilitate service users and also provide high efficiency. On the other hand, the innovations that are brought in can also have a negative impact on business actors in the same industry. The role of the government as a regulator is very much needed in responding to the existence of these innovations. Until now, in some cases, it can be said that in the Indonesian context has not been able to resolve the conflicts caused by disruptive innovations. This study aims to determine the significance of the disruptive era for the launch of innovative products.

## 2. Literature Review

### 2.1 Disruptive Era

The term disruptive innovation was developed by Christensen in his publication in the late 90's. In line with that, Chang Che Hang et al (2013) stated: "Disruptive innovation (DI) is a process by which a product or service takes root initially in simple applications at the bottom of a market or in a new market, and then relentlessly moves 'up market', eventually displacing established competitors

According to Utterback & Acee (2005), disruptive innovation theory takes an extension from the original formulation to a more general strategy formulation of the market expansion strategy. Meanwhile, Maitrayee Ghosh stated: "Disruptive innovation is the technology that changes the existing business model, or customer expectations" (Disruptive innovation is technology that changes conventional business models or consumer expectations) (Hang, 2013).

Disruptive Innovation, in Indonesian context which is adapted freely means disruptive innovation or disruptive innovation. The word disturbing in this context cannot be taken for granted. In line with technological developments, disrupting in this context means that the emergence of new technological innovations will disrupt the existence of old technologies. The notion of market competition in past economic science often makes price the main parameter in seeing the factors that influence competition itself (Wahyuningtias G et al, 2014:). However, it is often forgotten

that in modern market competition, technology has a very big influence. Especially for companies that are already established and feel they are leading the industry, often too much ego and confidence turn a blind eye to innovations made by competitors or newcomers. The technology that emerged afterwards was slowly accepted by consumers and replaced the technology provided by these established companies. After all, this is the basis of how substitute and easier innovation is called disruptive innovation.

The presence of the phenomenon of disruptive innovation has brought the world to change faster than before. Globalization, social networks, professional mobility, and worker unrest have spread and forced companies to focus on workers' knowledge. Currently, it is recognized that many business people are disturbed by globalization, shifting technology, and new competitors. They are forced to have to rediscover their corporate identity. Even in healthy companies, business model innovation is essential to maintaining their competitive position. The business model is shifting from the workplace to the streets.

## 2.2. New Product

New products are goods or services that are basically different from those already on the market. Thus the launch of new products is in order to find ideas for new products or services to provide added value commercially (Simamora, 2004).

According to Kotler, 2000 new products derivated into various categories. The first is new products that create an entirely new market. Second, a new product that allows the company to enter an established market for the first time. Third, new products which aim to complement one of the existing product lines. Fourth, products that provide better performance or better value and are able to replace existing products. Fifth, existing products aimed at new markets or segments. Sixth, new products that provide of performance in terms of lower prices or costs.

All of which in essence present something new, which has a differentiation from the existing one, which in turn provides added value commercially. In terms of new product types, according to Cooper (2001), there are two new product categories that are quite popular among companies, namely new product lines and improvements to existing products. In fact, new products and new product development contribute 30% of all products market, but from that number present products that are considered successful in marketing (Allen & Hamilton, 1982)

## 2.3. Innovation

Innovation is the key to business success. Even there are some experts who argue that innovation is the key to the success of a business, so that innovation is perceived as king or innovation is king. Innovation is developing new ideas and applying them in a practical activity (Carl Shapiro, 2005). The word innovation comes from Latin, namely innovare, which means making something new (Trina Fizzanty et al, 2014). Innovation can be defined as a "process" or "result" of the development and utilization or mobilization of knowledge, skills (including technological skills) and experience to create or improve new products (goods or services), processes and systems, which provide value. meaningful or significant (especially economic and social). Innovation as an "object" also has the meaning of a new product or practice available for application, generally in a commercial context. Meanwhile, innovation as an "activity" is a process of creating innovation, often identified with the commercialization of an invention.

Innovation can be define is the introduction of new things; renewal or new invention that is different from the existing or previously known (idea, method, or tool) then the verb is to innovate which is defined as showing something new; renew. (Suharso and Retnoningsih, 2009).

According to the Popular Scientific Dictionary written by Partanto et.al (2001) that innovation is renewal (the field of social development, science and technology), while the adjective is innovative which means leading to (improvement and development); is renewal in nature, and people who make innovations are called innovators which can be interpreted as reformers; people who come up with things / ideas of renewal methods; pioneering ideas or new of ideas.

Innovation in global context can be define as "The action or process of innovating or new method, idea, product, etc" which can be interpreted as an action or process of updating or methods, ideas, new products and others (<https://en.oxfordictionaries.com/definition/innovation>).

Based on the definitions above, it can be concluded that innovation is the process of translating an idea or invention into a good or service that creates value or something that consumers will pay for. To be called an innovation, an idea must be imitated at an economic cost and must meet specific needs. Innovation involves the deliberate application of information, imagination and initiative to produce greater or different value from resources, and includes all processes by which new ideas are generated and turned into useful products.

Innovation in business often occurs when ideas are implemented by companies to better meet customer needs and expectations. The concept of innovation according to Schumpeter which sparked the Theory of Economic Development in 1912 was defined as an effort to create and implement something into one combination, so that with innovation one can add value to products, services, work processes, and policies not only for educational institutions but also for stakeholders and Public. Schumpeter describes development as a historical process of structural change that is substantially controlled by innovation (Schumpeter, 2015).

Schumpeter divides innovation into 5 (five) major types: 1) new product launches or new species of products that are already known; 2) application of production methods or sales of new products (which have not been proven in the industry); 3) opening of new markets (markets where industrial branches do not yet have representatives); 4) Obtaining new sources of supply of raw materials or semi-finished goods; 5) New industrial structures such as the creation or destruction of monopoly positions. Then, based on the above narrative, we compiled research model as shown in the pict 1:

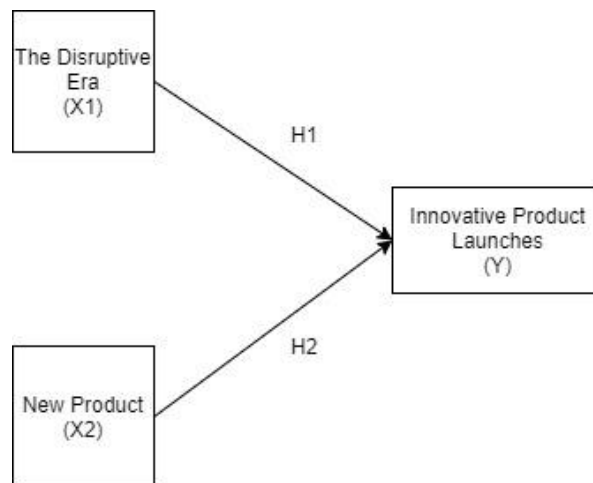


Figure 1. Conceptual Framework

Where is the research hypothesis as follows:

H1: The disruptive era affected the innovative product launches

H2: New products affected the innovative product launches

### 3. Methods

#### 3.1 Research Design

Researchers conducted this research using quantitative methods. Quantitative research is a research strategy that focuses on quantifying data collection and analysis. It is formed from a deductive approach in which emphasis is placed on theory testing, shaped by both empirical and positivist philosophy (Bryman, 2012).

#### 3.2 Sample and Population

Population is a generalization area consisting of objects / subjects, which have certain characteristics and qualities and are determined by the researcher to be studied in order to draw conclusions and results for research (Kusnadi, 2016). In this study, the sampling used was a simple random sampling approach where the researcher took the data randomly by giving the respondents the same opportunity. In this study, the population taken was 50% of the target respondents who had filled out a questionnaire form.

### 3.3 Operational and Variable Measurement

There are several variables used in this study, namely the disruptive era (X1), new products (X2), and innovative product launches (Y). The following is an explanation of some of the variables above:

The existence of the disruptive era (X1) has 4 indicators that are used as references (Erik Jan Hultink et.al., 2000), namely:

- a. Continuous innovation
- b. Pro with what customers want
- c. Responsive to change
- d. Use of information technology

In new products (X2) there are 5 Service Quality Indicators (Francheschini, 2009), namely:

- a. Modifications
- b. Short time to reach the market
- c. Clear market segmentation
- d. Gradual improvement
- e. Relatively small gap with competitor in technology infrastructure

New product launches have the following indicators (Kapferer, 2008):

- a. Freshness of ideas
- b. Added value
- c. Increased buyer interest

### 3.4 Data Analysis Techniques

In this study, researchers used Path analysis techniques. Where the researcher analyzes the causal relationship that occurs in multiple regression with the aim of providing a view of the importance and significance of the cause and effect relationship on a predetermined set of variables.

## 4. Data Collection

The research was conducted using data collection techniques through a questionnaire method for the general public, by determining special characteristics, namely people who are more than fifteen years old and are users of paid services. The measurement of the questionnaire conducted by the researcher used a Likert scale with a scale of 1-5. with an assessment of 1 being the lowest score to 5 with a very good rating.

## 5. Results and Discussion

In this study, respondents filled out a questionnaire form that was distributed online. Respondents are the general public who are more than fifteen years old and routinely use services. The number of respondents who were accepted reached more than 100 respondents but only 50% of the total respondents would be processed randomly due to the rest of the data have inaccurately information details.

The results showed that the influence of the disruptive era (X1) and the presence of new products (X2) had an effect on the launch of innovative products (Y). The following table shows the results of the analysis on the effect of the disruptive era and the existence of new products on the launch of innovative products.

Table 1. Model Summary

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of The Estimate
1	.988 <sup>a</sup>	.978	.976	.757

a. Predictors: (Constant), the disruptive era, new product

The table above shows that the relationship between the existence of a disruptive era (X1) and the presence of new products (X2) on the launch of innovative products (Y) is 0.988. This result implies that the effect of X on Y is

98.8%.

Table 2. ANOVA

**ANOVA<sup>a</sup>**

Model	Sum of Squares	Df	Mean square	F	Sig.
1. Regression	736.767	2	368.384	644.390	.00 <sup>b</sup>
Residual	16.007	28	.572		
Total	752.774	30			

- a. Dependent Variable: innovative product launches  
 b. Predictors: (Constant), the disruptive era, new product

In Table 2, it is known that the Fcount is 644,390 and with a significance of 0.000, which means less than 0.05 ( $p < 0.05$ ), the simple linear recession model can be used to predict the existence of a disruptive era variable, in other words, there is a variable effect of the disruptive era and the presence of new products at launch. innovative product.

Table 3. Coefficiency

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1. (Constant)	-.603	.527		-1.146	.262
the disruptive era	.335	.083	.355	4.120	.000
new product	.705	.091	.655	7.840	.000

- a. Dependent Variable: innovative product launches

In the coefficient table it can be seen that the regression coefficient in the disruptive era (X1) is 0.703 so it can be written as follows  $Y = -0.603 + 0.705x_1$ . The regression coefficient on the existence of a new product (X2) is 0.335 so it can also be written  $Y = -0.603 + 0.335x_2$ . Where a is a constant of the coefficient calculation. Taking the significance value in the simple linear regression test in the coefficient table, it is known that the signification of new product quality and service quality is 0.000, which means less than 0.05 so that the disruptive era and the presence of new products affect the launch of new products.

Based on the t calculation value in the coefficient table, it can also be seen if  $t_{count}$  equals 4.120 > than  $t_{table}$  equals  $t_{table}$  is 2030 It can be concluded that the disruptive era variable has an effect on the new product launch variable and from the results of the variable analysis, the existence of a new product with value of  $t_{count}$  is 7.840 > value of  $t_{table}$  2030 it can be concluded that the existence of a new product also affects the new product launch variable. How to look up values  $t_{table}$  by using the formula of  $T_{table} = ((a/2) ; n-k-1)$  which n is the number of respondents k and l is 1 or can also be viewed on Table.2 ANOVA on the df column the residual row. The analysis results obtained show that the disruptive era can affect the launch of innovative products, and the presence of new products can also affect the launch of innovative products.

The analysis results obtained indicate that the existence of a disruptive era and the presence of new products have an effect on the launch of innovative products. From the results of research conducted by (Sauramo, 2014) shows that an old competitor started trying to do something to save the business he had built. The most powerful way that can save the business is to start a product or service that is more innovative than existing ones. However, the product or service innovation must be adapted with global trend and demand. The disruptive era nowadays considered disrupting the insight of innovation. The disruptive innovation explains the failure of leading businesses. time after time and industry after industry (King and Baartartogtokh, 2015). Thus the considering innovation risk is also importance to minimize the failure of innovation plan.

Frequently, the new product releasement is considered to be an importance decision to enhance the business sustainability. However, the disruptive era nowadays often create the market condition volatile. The market participants problematics is often caused by unpredictable market that related to market volatility (Achrol and Stern, 1988). The product sales faced with a volatile market environment will have it adoption of the new product tested

and may need to exert greater commitment and effort to ensure success than where the market is less volatile (Atuahene-Gima, 1997). Thus the innovative product launches are expected to supply the volatile market. With the innovative products, the market competition will be synchronized rigorously.

## 6. Conclusion

The disruptive era affected the launch of innovative products. The influence given from the disruptive era on the launch of innovative products is quite large, in other words, the disruptive era has increased the launch of innovative products. The existence of new products also affects the launch of innovative products. This study has similarities with previous research, this means that the results of previous studies are still in line with the results of this study. Suggestions that can be given by the author for similar research in the future are to try to provide more detail from the case studies raised, in other words that are smaller than the research space so that the research results obtained can be more accurate and more in line with the needs of the study in the future.

## References

- Achrol, R. and Stern, L. W., Environmental determinants of decision making uncertainty in marketing channels. *Journal of Marketing Research* 25, 36–50, 1998.
- Allen and Hamilton., *New Product Management for the 1980s*, Booz-Allen & Hamilton, Inc. New York, 1982.
- Atuahene-Gima, K., The adoption of new products by the sales force: The construct, propositions and managerial implications. *Journal of Product Innovation Management*, 14, 498–514, 1997.
- Bryman, Alan, *Social research methods (4th ed.)*, Oxford University Press, Oxford, 2012.
- Cooper, R.G., *Winning at New Products: Accelerating the Process from Idea to Launch*, 3rd ed, Perseus Books, Reading, 2001
- Fizzanti, Trina et.al., *The Concept of Science, Technology and Innovation, Jobs Training Modules*, LIPI, Jakarta, 2014.
- Francheschini, Fiorenzo et.al., Service quality monitoring by performance indicators: A proposal for a structured methodology, *International Journal of Services and Operations Management* 5, Inderscience Enterprises Ltd, 2009.
- Hang, Chang Che et.al., *Opportunity Discovery and Creation in Disruptive Innovation*, Institute of Manufacturing University of Cambridge, Cambridge, 2013.
- Hultink, E.J., Hart, S., Robben, H.S. and Griffin, A., Launch Decisions and New Product Success: An Empirical Comparison of Consumer and Industrial Products. *Journal of Product Innovation Management*, 17: 5-23, 2000.
- Kapferer, Jean-Noël, *New strategic brand management: Creating and Sustaining Brand Equity Long Term* / Jean-Noël Kapferer. – 4th ed, Kogan Page, London and Philadelphia, 2008.
- King, Andrew A., Baatartogtokh, Baljir, How Useful Is the Theory of Disruptive Innovation?. *MIT Sloan Management Review*, 57(1):77-90, 2015.
- Kotler, Philip., *Marketing Management*. Edisi Milenium, Prentice Hall Intl, Inc New Jersey, 2000
- Kusnadi, Yahdi, The Influence of Online Registration on the number of registrants in Jakarta public elementary schools, Paradigma Computer and Informatics, *Journal of Bina Sarana Komunikasi Academy*, Jakarta, 2016.
- Leonardi, P. M., Innovation blindness: Culture, frames, and cross -boundary problem construction in the development of new technology concepts, *Organization Science*, 22, 347 –69, 2011.
- Sauramo, Heljo, The proliferation of a new-market disruptive innovation: case personal 3D printers, *Department of Management Studies Aalto University School of Business*, Espoo, 2014.
- Schumpeter, J.A., *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and The Business Cycle*, *Harvard Economic Studies*, Vol.46, Harvard College, Cambridge, 2015.
- Shapiro, Carl, Antitrust, Innovation and Intellectual Property, Testimony Before the AntiTrust Modernization Commission, *Anti Trust Commission*, 2005.
- Simammora, Henry., *Human Resource Management*, STIE YKPN, Yogyakarta, 2004.
- Suharto and Ana Retnoningsih, *Big Indonesian Dictionary*, Lux Edition, Widya Karya, Semarang, 2009.
- Utterback, James. Happy J. Acee, Disruptive Technologies: An Expanded View, *International Journal of Innovation Management*, Boston, 2005.
- Wahyuningtias G. et.al., How Google and Others Upset Competition Analysis: Disruptive Innovation and European Competition :aw, *International Telecommunications Society*, Brussels, 2014.

**Yusuf Amrozi** is a Lecturer at the Department of Information Systems, Faculty of Science and Technology, State Islamic University Sunan Ampel Surabaya, Indonesia. Graduated from the Department of Electrical Engineering at the Islamic University of Malang on the undergraduate program. Then proceed to master program on Information Technology Management, Institute of Technology Surabaya. Currently completing doctoral program in the Department of Management Science, Airlangga University in Indonesia. His research areas on Management Information Systems, IT Adoption and Strategic Management.

**Dwiky Arfiansyah Nugroho** is researcher and students in Department of Information Systems of Universitas Islam Negeri Sunan Ampel Surabaya, Surabaya, Indonesia. His research interests are in Supply Chain Management, Management Information Systems and Product Design Management.

**Rike Excella Putri** is researcher and students in Department of Information Systems of Universitas Islam Negeri Sunan Ampel Surabaya, Surabaya, Indonesia. Her research interests are in Supply Chain Management, Management Information Systems and ECommerce.

**Joko Suyono** is a lecturer at Narotama University, Surabaya, Indonesia. He is also as Head of Master of Management at Narotama University, Surabaya, Indonesia. He got bachelor degree in business administration and also accounting, he got master degree in industrial management and also in marketing management, and he got doctoral degree in business administration. Prior becoming a lecturer, he is a practitioner as senior manager in some multinational corporation such as Stanley Works Indonesia (USA Company), Ericsson Indonesia (European Company) and Lotus Indah Textile Industries, a multinational company in the textile, spun yarns.