

The Challenges and Strategies of Printing Industry

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Abstract. This article examines the challenges and success strategies of the printing industry in the context of changing customer demands and changing technology. This study focuses on the Indonesian printing industry and the Malaysian printing industry for comparison and validation. The benefits and objectives of this study are to determine the strategy and compare the Indonesian printing industry with the Malaysian printing industry. The results of this study indicate the existence of the printing industry, the challenges that are being experienced, and the strategy needed. The research results can be used by the government, the printing industry and other industries in predicting changing challenges and to survive and succeed in running a business.

Keywords: Challenges, Strategies, Printing Industry

1 Introduction

The printing industry has contributed and made a significant impact on the Indonesian economy. According to the Indonesian Central Statistics Agency [1], IDR 75,480 billion is the gross output value of the printing industry in 2020. 166,375 people are the total workforce in the printing industry in that year. The printing industry has great benefits for the country and plays an important role in helping educate the nation through printing and supporting the nation in improving the economy, social development, and the use of technology [2] [3]. Indonesia's printing industry has maintained an important role in the creation of its rich cultural heritage. New technologies are driving the rapid spread of information globally [4]. However, printing technology, which is considered the most important invention in human history, was affected by the development and problems of human civilization which required adapting to the new printing market conditions [5].

The needs and desires of customers have changed towards printed products. The printing industry is required to find and provide various printing techniques to meet customer needs. The printing company has carried out a study of creative thinking that has led to the introduction of innovative printing products and the application of various printing techniques [6]. This has a direct impact on printing technology that continues to develop, one of which is digital printing.

This technology is developing dynamically and very quickly since the existence of information technology, the internet, and social media which have an impact on changing social life. The development of digital printing technology must be given special attention because it cannot be stopped. The disadvantages of conventional printing techniques can be eliminated by digital printing techniques. The advantages of digital printing technology are efficiency and meeting the needs of existing customers. This reason makes digital printing develop dynamically and very quickly become popular [7].

In research in the Malaysian printing industry, an approach was found for the printing industry, especially digital printing so that their business can survive and succeed. The approach is to pay attention to market trends and the adoption of new technology [7] [8]. Similar conditions are also experienced by the printing industry in Indonesia, in a study published by M. Sinung Restendi [9]. Information technology that is growing rapidly destroys the dominance of print media in online media. The change and shift in consumer behavior using new media that supports information technology and using the internet and starting to leave traditional media is a real and serious challenge for the development of print media. For this reason, this study is expected to be able to provide an overview of the challenges and strategies faced by the Indonesian printing industry.

2 Research Methods

This study uses a qualitative approach. This approach was chosen because the research process was carried out fairly and naturally following the objective conditions in the field, as well as being able to carry out case studies for comparative research [10]. Interviews are the main means of obtaining data, secondary data is documentation (reports, workshops/seminars, and research publications). This research uses purposive sampling method. So that the data collected is varied and reliable, the respondents selected are employees in managerial positions or company decision makers who have experience in the printing industry and are involved in the decision-making process, anonymous subjects were chosen because the reference source from the Malaysian author also stated anonymity. They are considered to have a lot of experience and knowledge in providing information. The process of selecting a printing company is chosen based on its core business. Printing company and included in the category of large companies. The selected printing company has a printing service production sector that uses offset and digital printing, packaging, and security printing processes. Printing companies were selected based on their consent and willingness to be interviewed in depth.

Two respondents from two different printing companies were selected for in-depth interviews in this study. Questions were asked specifically about the challenges and strategies of the printing industry based on their experience. In addition, the analysis of the interview results will be compared with the results of similar studies in the Malaysian printing industry. Comparison using case study methods, and data sources using research results that have been published.

3. Result and Discussion

3.1 State of the printing industry

Research on the global impact of Covid-19 has existed but has not focused on the printing industry. Recently, according to some of these reports, the ability through online printing

business sales has made the digital printing industry increasingly recognized as prospective and able to answer challenges during this pandemic [11]. Since Covid-19 hit the world as a whole, its unprecedented impact has created a crisis and thrown the world into chaos and created a new health order in various fields, including industry [15]. Industries are affected, many industries are struggling to survive, and some are still working and surviving well. One of them is the printing industry. A report published by the Central Statistics Agency of the Republic of Indonesia [1] 8.86% growth in the printing industry in 2019 with national economic growth of 5.02%. In 2020 Indonesia experienced a recession with economic growth of -2.07%, but the printing industry recorded a positive growth of 0.22% [1].

It is difficult to say that the printing industry can survive and grow evenly because the printing sector is feeling the impact of the economic downturn. In light of the quarantine, many companies are shifting in their work-to-home (work from home-WFH) handling, further accelerating the trend towards paperlessness or digitization. When companies can't print and ship to customers, because of a paradigm shift. The need for printing in schools and colleges is reduced. The impact felt, in all aspects of the printing industry from the domestic market, manufacturers, and suppliers were hit hard. The beneficiaries are technology or technology-based companies. But there is a slight contradiction when most people work from home, they start to think more often about decorating interiors and trying to make their homes more comfortable. And of course, during the lockdown, there are not many ways to shop, make ends meet, or use money because all activities are restricted. business in the printing industry fell by only about 15% of existing orders. even if we compare the number of orders with the same period in 2019, we see a change in the company's trend for worker reduction and automation of mold orders [4] [5] [11]. Then a new hope arose, the development of offset and digital printing was promising because it had a special segment for its users.

The trend of new customers can be seen from the increase in orders for business cards or greeting cards since the quarantine restrictions were lifted. Even more modern businesses looking for automated and contactless solutions to meet their needs, reading and viewing articles in print media, demand for print products such as custom packaging, promotional items, and labels will continue to grow during and after the Covid-19 pandemic. This statement can be interpreted from other perspectives but still cannot explain how the post-pandemic period will develop, as a provisional conclusion, the analysis can be conveyed and allows three conclusions. First, Looking at many global e-commerce statistics show that the coronavirus crisis is likely to accelerate existing industry trends and even change them. Have an advanced explanation that the online purchasing area and shipping is constantly evolving, which of course requires packaging; Second, from the supplier's point of view, order processing automation is urgently needed, Changes in demand for a highly automated and fully integrated workflow system, This trend is forcing all suppliers to accelerate in terms of technology; Third, Industrial automation is becoming increasingly important and needed both at the equipment level and workflow systems that produce quality and efficient products. The need for highly skilled professionals cannot be replaced quickly, Easy-to-use system requires less knowledge as it is important for new production systems, special training or education is required in this regard. Discussion of changes in customer trends and technological changes that have an impact on quality and human resources in line with the conditions of the printing industry in Malaysia and Thailand [8] [12].

Media convergence is part of the metamorphosis of mass media which includes many technological factors [9]. The existence of the internet causes mass media to use media convergence theory such as e-paper, e-books, online media, e-magazines, radio streaming, and social media. The resistance of the media business is used as a motivation for the mass media to apply this concept because technological developments no longer prioritize prints

(newspapers, magazines, books) only. Creative innovation, creation, and media convergence are highly desirable so that the mass media can still exist in the current business era. As part of the form of innovation, media convergence requires various stages and processes in its implementation. It was found that there was a diffusion of media convergence innovation on focus. Reinforced by the statement of Rudi Susanto [5], the printing industry will not die because the need for printing is still eternally needed from human birth to death. Creativity is needed to increase the value that a person has through functional, emotional, and social values. So that it can overcome current obstacles such as changes in customer trends or technological developments, but adaptation and innovation to get out of the comfort zone of the current printing industry.

3.2 Challenges of the Indonesian Printing Industry

Industry challenges in this era are very heavy. One of them is that the printing industry is feared to be destroyed if it is not able to adapt properly. The challenge for this business going forward is how the company can develop a tactical business plan for the short term and a strategy for the long term. The goal is very clear, namely to improve company performance by managing risk as well as possible and maintaining business continuity. In modern circumstances, the development of innovation is determined by the customer certainty factor, which is related to customer trends. The printing industry responds and adapts based on the influence of the total demand from consumers for products, the rapid digitization process and the development of innovative processes and products, etc. [13].

Information obtained from respondents stated that four main challenges cannot be avoided by printing companies. the first challenge is quality, quality is related to products, how do companies maintain the quality of their products that have an impact on customer trust. The second is human resources, HR has a big influence on the operational processes of a printing company from upstream to downstream, from operators to management. The third is the machine, the machine is the main tool to produce an item, this item is what customers need. The fourth is demand, customer demand for products produced by printing companies.

As a comparative study, research conducted in the Malaysian printing industry [8], There are also 4 challenges in the printing industry. The first challenge is the Market, the market is related to price and demand in the printing industry to survive and stay in business. The second is technology development, closely related to the development of printing technology, the latest trends require an industry that moves in line with technological developments such as the era of digital printing and the use of high-tech devices and machines. The third is Human Resources, related to the personalization of human resources, human resource management is an asset that must be maintained to remain competitive in the market. The fourth is Quality, which relates to the enforcement of quality management, associated with organizations being able to stay in business and competitive gained through the positive impact of quality program practices.

There are similarities and similarities in the challenges between the Indonesian printing industry and the Malaysian printing industry, this proves that the results of the analysis are valid for research findings in the form of challenges felt by the Indonesian printing industry. A summary of challenges facing the Indonesian printing industry and the Malaysian printing industry for comparison and validation can be seen in the following figure:

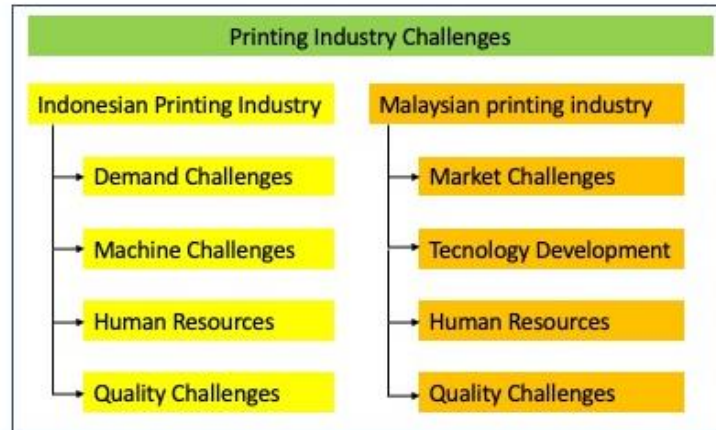


Figure 1. Printing Industry Challenges

The similarity of challenges lies in the challenges of human resources and the challenges of quality. The similarity of challenges is found in the challenges of demand with the market, which are both machines and technology. This is not a big impact, because it can be described more specifically. Demand Challenges in the perspective of the Indonesian printing industry are customer demand and trends, this is closely related to market challenges. The challenge for machines in the Indonesian perspective is to follow the latest printing needs, which are related to machine maintenance and renewal, in line with the technology development challenges.

3.3 The Strategy of the Indonesian Printing Industry

Strategy formulation is necessary to show that product development strategies need to be implemented in the production and operational function development plans [14]. Most printing industries have the same strategy, namely quality products with good quality and low prices. Printers also often place advertisements on websites and come directly to customers. The conclusion is that the strategies of competitors and companies are not much different. From the analysis of industry competitors, competition in the printing industry can be said to be strong because of the large number of competitors, relatively large fixed costs, competition for additional capacity, and the same strategy [14]. Data analysis using triangulation technique, the results of the initial study, the results of interviews as primary data, and comparative studies using the results of research conducted in Malaysia.

There are several types of strategies used by the printing industry in Indonesia in response to the 4 challenges that exist. Similarly, the strategy in the Malaysian printing industry is an answer to the 4 challenges that exist and as a comparison and validation [8]. To make it easier to understand the strategy and comparison, it is presented in Table 1:

Table 1. Printing Industry Strategies

No	Challenges	Strategies	
1	Demand / Market challenges	Indonesian Printing Industry	Malaysian Printing Industry
		1. Strengthen marketing	1. Reduction Print order
		2. On-time production	2. Print brokers
		3. Concern market demand	3. Price war
			4. Changing in customer demand
2	Machine challenges / Technology development	1. Concern technology development	1. Technology in offset
		2. Routine machine maintenance	2. Technology in digital printing
		3. Concern machine quality and quantity	
		4. Production efficiency	
3	Human Resources	1. Skill-based recruitment	1. Attitude among employee
		2. Initial training, special training, and periodic training	2. Training and knowledge
		3. Career path	3. Manpower skills and competencies
4	Quality challenges	1. Implementation of quality management	1. Management commitment
		2. Certification	2. Quality program and certification
		3. Maintain quality	3. Employee participant

Based on the analysis that has been done, there are strategies that printing companies can do in dealing with challenges. When viewed from the Demand / Market challenges, there is a combination strategy between the Indonesian and Malaysian printing industries, in addition to strengthening validation that can be used to enrich strategies that can be applied. Likewise with the challenges of machine/technology, Human Resources, and Quality challenges.

4. Conclusion

The Indonesian printing industry, which has made a significant contribution and impact on the Indonesian economy, is facing difficult times, this industry needs direct assistance in the form of strategic development programs that are tailored to the goals and mission of the industry

as well as current challenges. The industry and specifically the printing industry will not die because the need for printing is still needed forever, it only takes creativity to increase the perceived value through functional, emotional, and social values.

The printing industry in general can be generalized to face the real challenges of the digitalization era that forces all industries to change. This era changes the paradigm of customer demand and has a real impact on changes in technological developments, which are followed by changes in quality standards, and adjustments in human resources. Facing the pressing challenges of the printing industry, a strategy must be found and determined in overcoming the challenges to survive and succeed in running a business so that it can be a reference in maintaining business continuity.

Acknowledgements

We would like to acknowledge The Ministry of Higher Education Malaysia for financial support under the FRGS-RACER grant scheme (RACER/1/2019/SSI07/UITM/1). The author appreciates the financial support from the Ministry of Higher Education Malaysia under Malaysia International Scholarship (MIS). Politeknik Negeri Media Kreatif, Jakarta-Indonesia, as the organizer of JICOMS, has provided the opportunity to join the conference.

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