

Journal of Soft Computing Exploration



Business process re-engineering to support cake shop business sustainability

Kharis Rahmat Hidayat ¹, Alifio Ibnu Nugroho ², Kevin Tito Hutahaean ³, Muhammad Khoirul Anam ⁴

1,2,3,4 Department of Computer Science, Universitas Negeri Semarang, Indonesia

Article Info

Article history:

Received Feb 10, 2022 Revised Mar 20, 2022 Accepted Mar 25, 2022

Keywords:

Business re-engineering, Cake shop business, Marketing innovation

ABSTRACT

Business Process Re-engineering is usually carried out to increase satisfaction with goods or services so that customers tend to choose goods or services from certain companies rather than choosing goods or services from competing companies. This cake shop has been around since 2000, but previously in 1999 they had tried to process the cake shop's recipe so that they found a concoction that suited the local people's tongue. However, this business did not last long because the shop they owned had experienced a fire incident which caused the cake shop business to be evicted and eventually moved to another place so that they also received business threats, namely the emergence of many competitors selling similar products. The purpose of our research is that we will conduct a re-engineering analysis to optimize the business processes in the cake shop. The research method used in our research is descriptive. The descriptive research method is carried out by seeking information related to existing symptoms, clearly explaining what goals will be achieved in the research conducted. In this new model, we add a promotion method, namely by using advertising services on social media so that it can reach people who are still not familiar with the product. In the new model, we also added a process, namely a research process to add innovation to new product cake variants that will give a new impression to the shop's customers.

This is an open access article under the CC BY-SA license.



Corresponding Author:

Kharis Rahmat Hidayat, Department of Computer Science, Universitas Negeri Semarang. Email: afalasari@students.unnes.ac.id

1. INTRODUCTION

Re-engineering is the fundamental re-engineering and radical redesign of an organization's business processes that leads an organization to achieve dramatic improvements in its business performance [1]. While what is meant by Business Process Re-engineering is a philosophy that leads to the achievement of steps in developing company performance by redesigning existing processes throughout the organization [2].

Business Process Re-engineering is usually carried out to increase satisfaction with goods or services so that customers tend to choose goods or services from certain companies rather than choosing goods or services from competing companies. or specialized services and maintain the mass production of the company's products. Business process re-engineering can improve the flow of business processes so that they can become more effective and efficient [3]. The existence of improvement or additional optimization of business processes also allows the addition of company profits [4].

In the era of rapid development of the food business world as it is today. As evidenced by the increasing number of food companies that have sprung up, various food companies are growing rapidly in big cities, be it main dishes, desserts, snacks, and even souvenir snacks. Bantu City is one of the culinary tourism

destinations that have a food company that is well known by the public, one of their superior products is brownie cake.

Brownies are chocolate-based cakes that have been widely circulated and sold in various cake shops and bakeries because they are loved by many people [5]. This cake has become a tradition at various events as a treat or gift for close relatives. Because of the many types and shapes, they are very diverse and interesting so that they are liked by many people. This cake is getting more and more famous with the emergence of various new flavors and variations that are increasingly interesting to try. Even now the processing technique is not only baked but also steamed. In their company, they also have many flavor innovations from the cakes they produce, such as Cheese Cream, Tiramisu, Choco Marble, and Banana Fizz flavors. In addition to innovating in terms of flavor variants, they also took pictures of the brownies they produce, namely dry brownies, grilled brownies, and several other product innovations.

Competition in the food industry, especially brownies, has become a food that many consumers are looking at. Based on 2015 Food Consumption Statistics data, cake consumption in 2015 reached 1,245 kg/capita/week [6]. This company has been established since 2000, but before that, in 1999 they had tried to process the recipe so that they found a concoction that suited the tongue of the local community. Then in 2000, they built an office. This company is one of the companies that run the culinary business and focuses more on brownies production, with their superior product, steamed brownies.

Along with market developments, this cake business has become a market leader by maintaining, improving, and continuing to innovate to develop the quality and variants of the products they have. Then in 2000, the business owner opened a street stall. However, this business did not last long because the shop they owned had experienced a fire incident which caused the business to be evicted and eventually moved to another place.

Amid their journey to start a business, new competitors emerged, they had an impact on the decline in the number of consumers and sales transactions. The decrease in customer interest in the products owned by the cake shop is because basically, consumers have their own decisions to buy the products or services offered by the cake shop competitors.

The decisions taken by each consumer are usually influenced by many factors and situations such as sales locations, product differentiation, product prices, promotions, and so on. The purchase decision is to buy the most preferred brand from various alternatives, but two factors can be between purchase intention and purchase decision [7].

Customer satisfaction and the company's sales volume can be influenced by the purchasing decisions of each consumer so that it can be the main determinant of a company to win the trade competition. Over time, competition between companies that produce food, especially cakes and souvenirs, is getting tougher. Currently, the product of this cake shop is one of the popular food businesses among the public. It has penetrated the sales market in other cities, has tempted the taste of the wider community to try the delicacy of the products they offer, and enliven the food business competition in several cities in Indonesia.

One solution that can be used to attract consumers to buy the products we offer is to carry out effective promotions, we must also offer lower prices compared to products offered by competing companies. The attractive promotions we offer can also have a persuasive impact on consumers and ultimately encourage them to consume the products we offer. Thus, the producers of companies engaged in the food sector will continue to be attractive to make attractive advertisements and promotions to influence consumers to buy after seeing interesting promotions and advertisements, consumers will offer the products that we offer by themselves. But what you need to remember is that consumers will always compare the prices we offer with the prices offered by competing companies for our products.

Promotion is a way to attract prospective buyers to make transactions with sellers so that the company's goal of making profits can be achieved [8].

The disadvantage is that they are less active in conducting sales promotions compared to promotions carried out by other food producers. The lack of promotion is a crucial problem considering that it can be the cause of a decrease in sales or the number of visitors who experience a decrease every month. As an effort to support the business process, one of the culinary businesses known by the public is a cake shop. We will perform a reengineering analysis to optimize the business processes carried out by the cake shop.

2. METHOD

The method used in our research is the descriptive research method. Descriptive research is research that aims to collect information about the status of existing symptoms, namely the symptoms that existed at the time the research was conducted [9].

72 **I**SSN: 2746-7686

Based on this understanding, we can conclude that the descriptive research method is carried out by seeking information related to the existing symptoms, clearly explaining what goals will be achieved in the research conducted. In addition, a plan must be made regarding the approach to be taken and collect various kinds of data as material for making a report or an article.

In this study, we want to see how big the gaps and weaknesses are that the cake shop has after that we will carry out a re-engineering process that is useful for improving the business processes carried out by the cake shop.

The type of descriptive research method used in this study is intended so that we can obtain in-depth and comprehensive information about the gaps and weaknesses in the company's business processes.

3. RESULTS AND DISCUSSIONS

In our business, we found a weakness in the promotion process where business promotion on social media was less effective. This is evidenced by the lack of likes and comments or responses from buyers/potential buyers on social media posts.

So, it can be said that business promotion is too dependent on word-of-mouth promotion and only sells and promotes goods face-to-face and does not do sales promotion through online media. According to Basu Swastha [10] face-to-face sales are interactions between individuals, meeting each other face-to-face to create, improve, control, or maintain mutually beneficial exchange relationships with other parties. However, over time they began to expand into promotions through online media and social media. The description of cake promotion trough social media can be seen in Table 1.

Table 1. Cake promotion through social media

Social Media	Description
Facebook Fanpage	 Followers, likes, and comments on his Facebook fan page is still very small.
Blog	 Activities posted on the blog official lack of updates.
Twitter	 Still at least followers and comments on Twitter and lack of updates.
Instagram	- At least people like dan comment.
Website	- Not everyone knows the website.

Source: Data processed by researchers (2018)

In addition to changing human behavior, in communicating, the internet also provides significant changes in marketing efforts [11]. One marketing method that is very popular today is promotion through online media as a channel to convey the message content to the wider community simultaneously. For the current type of social media, there are also many categories of social media, according to Nasrullah [12] there are 6 categories of social media, namely:

- 1. Social networks
- 2. Blogs
- 3. Microblogging
- 4. Media sharing
- 5. Social bookmarks
- 6. Wiki

Thanks to the huge development of advertising tools on social networks (especially on Facebook and Twitter), there is greater flexibility to launch various campaigns tailored to a segmented target population.

DOI: 10.52465/joscex.v3i1.54

These characteristics allow for further promotion and diffusion among potential users, which would be difficult to reach using traditional media [13].

Therefore, we have a solution, namely increasing the promotional power of the business by using advertisements or advertising services on social media. With advertising or advertising services, buyers or potential buyers can see promotional ads when accessing social media. Dunn and Barban [14] wrote that advertising is a form of non-personal communication activity that is conveyed through the media by paying for the space it uses to convey persuasive messages to consumers, by companies, non-commercial institutions, and interested individuals. This will certainly increase the possibility of potential buyers seeing promotions and introducing their products to potential buyers and attracting new potential buyers. The problem that can be taken from MSME business actors is a marketing strategy that does not utilize social media. The lack of marketing aspects can lead to a decline in the sustainability of MSME business actors [15].

Indeed, if we look at the promotion at a glance, it will be seen that the promotional activities carried out by this cake shop are quite interesting from month to month. However, there will be many people who do not know about the promotion that is being carried out. In practice, the company is good at promoting it on social media fan pages Facebook, Blog, Twitter, and Instagram and rarely updates its promotional content.

We can see that when uploading posts on their social media, most of them have quite a long upload time. The information they provide about the promotion of their product offerings is also considered less desirable by many people because the information they provide is only monotonous about product information, outlets and the promotions they do are less than optimal.

No wonder many people think that the company has very few promotional offers compared to other companies because on social media they only have a few followers when compared to social media from other food and beverage industries which are competitors from companies from Indonesia. company. Likewise, based on the information above, we can conclude that even though they use several social media platforms, the Company has not been able to manage promotions on their social media properly. Table 2, present price list of steamed brownies products november 2017.

No **Cakeshop Products Price Competitor's Cake Shop Products Price** Steamed Original 36000 Steamed Original 33000 Steamed Cheese Cream 2 64000 Steamed Cheese Cream 35000 Sarikaya Steamed Sarikaya Steamed Pandan 3 42000 35000 Pandan 4 Steamed Blueberry 44000 Steamed Blueberry 35000 5 Steamed Tiramisu Steamed Tiramisu 52000 35000 Steamed Banana Bizz Steamed Banana 6 42000 35000 **Bizz** 44000 Strawberry Steamed 33000 7 Strawberry Steamed Steamed Choco 44000 Steamed 3 Flavors 33000 Marble (Banana, Cheese, Pandan) 9 Steamed Black Glutinous Steamed Tiramisu 44000 30000 Marble Mint Green Tea 10 42000 Zebra Steamed 32000

Table 2. Price list of steamed brownies products november 2017

Source: Data processed by researchers (2018)

Based on the table above, there are also weaknesses where if the price of one product, namely brownie cake, is compared to other brand products, it can be seen that the price of this brownie product is relatively more expensive compared to competing company brand products.

However, with new buyers who are interested in the promotion above, it can increase the number of product sales. So that a price reduction strategy can be used by adding a promo label to each product. We consider this method quite effective to attract buyers. Not only new buyers but buyers who have been subscribed for a long time though. So that in the end the profit from selling the product will be emphasized more on the variable number of products sold in the market and not emphasize the profit on the price per unit of the product. Profit is one measure of operating activity. Profit figures are usually reported on the income statement for a period along with other components such as revenues, expenses, gains, and losses. In our promotional business process modeling, we change it as follows, shown in Figure 1.

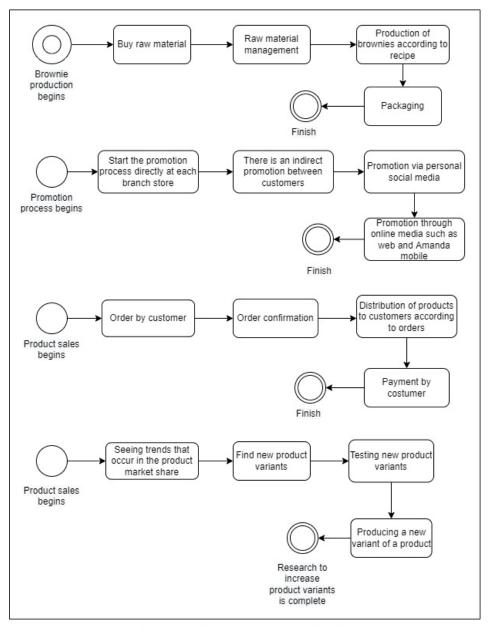


Figure 1. Business process re-engineering

Table 3. Differentiation of Cake Products in 2017

No.	Cake Shop Products	Competitor's Cake Shop Products
1	Steamed Brownies	Steamed Brownies
2	Pastry dan Cookies	Cakes
3	Baked Brownies	Butter Cookies
4	Assorted Layers	Snacks
5	Snacks	Candies
6	Assorted Raffle Pies	Special Gift
7		Bagelen and Toast Bread
8		Bolen and Pastry
9		Baked Brownies
10		Assorted Layers

Source: Data processed by researchers (2018)

In the re-engineering process that we made above, we added one additional business process, namely the research process to add product variants because in BPM their business processes do not yet have a business process to increase their product variants. In addition, the products they have in terms of the number of variants are still inferior to the many product variants and flavors offered by competing companies.

There are at least 2 alternative evaluation criteria. First, are the benefits obtained by buying the product. Second, the expected satisfaction [16]. Using combined sources to fund activities and increase debt to a certain level that does not affect the financial autonomy of the company is another way designed to increase the ability of assets to generate profits [17]. We created this new business process so that companies can increase innovation from their product variants so that they can give consumers more flexibility to choose more products offered by the company so that when old customers want to buy their products again, consumers get the impression of something new because of the many variants. newly offered by the company. According to research by Efinita and Titik [18], there is a positive and significant effect between product variations on consumer satisfaction.

4. CONCLUSION

There is always a fee for every win. We decided to evaluate our re-engineered model by comparing it with the old model. The following is the result of our evaluation of the advantages and disadvantages of our modeling. Excess, our business process reengineering model has the potential to attract more customers than the old model. This is because in our model we add a promotion method, namely by using the services of ads on social media so that it can reach people who are still not familiar with the product with the brand. With many new customers, business profits will increase. In our model, we also added a process, namely the research process to add innovations to new variants of products that will give the impression of something new to the customers of the cake shop. Lack, the weakness or deficiency of our re-engineering model, when compared to the old model, is the increase in costs for running research, production, and promotion business processes. In the research business process to add innovations to new product variants, of course, will add to the cost burden which is not small if the results of this research fail. The production process will also experience additional costs because in this model the number of product production will be increased in anticipation of additional customers. Significant additional costs are in the promotion process where this process is added to promotions using the services of ads on social media. Despite its weaknesses, our re-engineered model is superior in terms of long-term benefits when compared to the old model. Therefore, we think that our re-engineering results model is successful.

REFERENCES

- [1] L. Ellitan, "Reengineering proses bisnis: tinjauan konseptual dan metodologi," *J. Manaj. dan Kewirausahaan*, vol. 1, no. 1, pp. 12–21, 1999.
- [2] R. Nurhalipah, A. Erfina, C. Warman, S. I. Perpustakaan, and B. P. Reengineering, "Business process reengineering (Bpr) sistem informasi perpustakaan Man 2 Sukabumi," pp. 282–289, 2021.
- [3] S. Subhan, K. Budiman, and D. A. Efrilianda, "Business process re-engineering to support the sustainability of the construction industry and sales commodities in large scale transaction during COVID-19 with integrating ERP and quotation system," *Sci. J. Informatics*, pp. 84–91, 2021.

76 □ ISSN: 2746-7686

[4] O. Khoirunnisa, D. A. A. Pertiwi, E. N. Dianti, A. M. M. Fattah, and K. Budiman, "Improvement business process model and notation on the drink distribution industries using six core element," *J. Soft Comput. Explor.*, vol. 2, no. 2, pp. 99–106, 2021.

- [5] D. Wahyuningtias, T. S. Putranto, and R. N. Kusdiana, "Uji kesukaan hasil jadi kue brownies menggunakan tepung terigu dan tepung gandum utuh," *BINUS Bus. Rev.*, vol. 5, no. 1, pp. 57–65, 2014.
- [6] S. Putri, "Kajian aktivitas indeks glikemik brownies kukus," J. Kesehat., vol. VIII, 2013.
- [7] S. I. Astuti, S. P. Arso, and P. A. Wigati, "Analysis of hots indicator on senior high schools physics exam question in wets pasaman district," *Anal. Standar Pelayanan Minimal Pada Instal. Rawat Jalan di RSUD Kota Semarang*, vol. 3, pp. 103–111, 2015.
- [8] M. Wijaya, "Promosi, citra merek, dan saluran distribusi pengaruhnya terhadap keputusan pembelian jasa terminix di Kota Manado," *J. Ris. Ekon. Manajemen, Bisnis dan Akunt.*, vol. 1, no. 4, pp. 105–114, 2013, doi: 10.35794/emba.v1i4.2578.
- [9] C. M. Zellatifanny and B. Mudjiyanto, "Tipe penelitian deskripsi dalam ilmu komunikasi," *Diakom J. Media Dan Komun.*, vol. 1, no. 2, pp. 83–90, 2018.
- [10] E. Togodly, "Pengaruh promosi terhadap peningkatan penjualan," *J. Chem. Inf. Model.*, vol. 53, no. 9, pp. 1–9, 2019.
- [11] J. Jecky and R. Erdiansyah, "Pengaruh iklan media sosial dan word of mouth terhadap keputusan pembelian," *Prologia*, vol. 5, no. 2, pp. 307–312, 2021.
- [12] D. S. Puspitarini and R. Nuraeni, "Pemanfaatan media sosial sebagai media promosi (studi deskriptif pada happy go lucky house)," *J. Common*, vol. 3, no. 1, pp. 71–80, 2019.
- [13] E. L. Otero and R. C. Gutiérrez, "Using social media advertising to increase the awareness, promotion and diffusion of public and private entities," in *Distributed Computing and Artificial Intelligence*, 12th International Conference, 2015, pp. 377–384.
- [14] Barrios, "No Title طرق تدريس اللغة العربية," Экономика Региона, vol. 10, no. 9, p. 32, 2012.
- [15] M. Cendana, "Pemanfaatan Sosial Media Sebagai Strategi Promosi Bagi Keberlangsungan Bisnis Umkm," *J. Community Dev. Soc.*, vol. 1, no. 1, pp. 1–10, 2019, doi: 10.25139/cds.v1i1.1649.
- [16] B. A. Pamungkas, "Pengaruh promosi di media sosial dan word of mouth terhadap keputusan pembelian (Studi kasus pada Kedai Bontacos, Jombang)," *J. Komun.*, vol. 10, no. 2, pp. 145–160, 2016.
- [17] C. Burja, "Factors influencing the companies' profitability," *Ann. Univ. Apulensis Ser. Oeconomica*, vol. 2, no. 13, pp. 215–224, 2011, doi: 10.29302/oeconomica.2011.13.2.3.
- [18] T. Efnita, "Pengaruh variasi produk, kualitas pelayanan, harga dan lokasi terhadap kepuasan konsumen pada wedding organizer," *AdBispreneur J. Pemikir. dan Penelit. Adm. Bisnis dan Kewirausahaan*, vol. 2, no. 2, 2017.

J Soft Comp. Exp., Vol. 3, No. 1, March 2022: 70 - 76