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Impact of the product quality on consumer satisfaction and corporate brand

Abstract. The paper is a result of quantitative research undertaken by the authors in 2017 to study correlation between product quality, customer's satisfaction and corporate brand by example of a big Slovak dairy Milsy JSC (Milsy a.s.).

To conduct a detailed analysis, the following scientific assumptions have been formulated: 1) There is a dependency between product quality and the respondents' satisfaction. 2) There is a dependency between the rate of visits to Milsy stores and the economic activity of the respondents. 3) There is a dependency between the economic activity of the respondents and the awareness regarding Milsy JSC and its brand. 4) There is a dependency between the quality of products and services prove Milsy JSC and the frequency of purchasing the Milsy products. 5) There is a dependency between the price of products and the frequency of purchasing the Milsy products.

The study of results proves positive connection. It is found that frequency of dairy product's buying depends on whether the customers are satisfied with the product quality. The results also showed that in terms of brand development and attracting new customers students form the largest consumer group to work with, as far as they scarcely ever know where Milsy JSC brand stores are located. The majority of the respondents perceive Milsy brand positively which allows concluding about its strong market position.

Keywords: Consumer Satisfaction; Quality; Dairy Products; Corporate Brand; Milsy JSC (Milsy a.s.) JEL Classification: M31

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Вплив якості продукції на задоволеність споживачів і корпоративний бренд

Анотація. Метою статті є оцінка кореляції між якістю продукції, задоволеністю споживачів і корпоративним брендом. Первинну інформацію для проведення дослідження було отримано шляхом опитування 743 респондентів у Словацькій Республіці щодо крупного виробника кисломолочної продукції АТ «Мілсі». За результатами проведеного дослідження було зроблено висновок, що АТ «Мілсі» є потужним брендом, що має позитивний імідж з огляду на якість продукції. Статистичний аналіз результатів проведеного опитування показав, що споживачі продукції названого акціонерного товариства переважно задоволені якістю та купують продукцію один раз на тиждень. Опитування, водночас, засвідчило, що більше половини студентів не купують продукти в магазинах АТ «Мілсі», а також складають найбільшу групу, що має найменшу обізнаність стосовно магазинів згаданої фірми.

Ключові слова: задоволеність споживачів; якість; молочні продукти; корпоративний бренд; АТ «Мілсі».

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Влияние качества продукции на удовлетворенность потребителей и корпоративный бренд

Аннотация. Целью статьи является оценка корреляции между качеством продукции, удовлетворенностью потребителей и корпоративным брендом. Первичную информацию для проведения исследования были получены путем опроса 743 респондентов в Словацкой Республике относительно крупного производителя кисломолочной продукции АО «Милси». По результатам проведенного исследования был сделан вывод, что АО «Милси» является мощным брендом, который имеет положительный имидж, принимая во внимание качество товаров и услуг, предоставляемых данной компанией на молочном рынке Словакии. Статистический анализ результатов проведенного исследования показал, что потребители продукции названного акционерного общества преимущественно удовлетворены качеством продукции, и покупают ее раз в неделю. Опрос, вместе с тем, показал, что более половины студентов не покупают продукты в магазинах АО «Милси», а также составляют наибольшую группу, имеющую наименьшую осведомленность относительно магазинов упомянутой фирмы.

Ключевые слова: удовлетворенность потребителей; качество; молочные продукты; корпоративный бренд; АО «Милси»

1. Introduction

1.1. Image and Brand Awareness

The image characterises a person or a company. It creates an aura which distinguishes a particular company among its competitors offering similar products and services. The image is often connected with a unique offer of a selected company. By creating a positive image, companies can increase the value of their products and services (Hingston, 2002) [4]. The Corporate image is like a symbol or a picture of an undertaking which gradually created its consumers, customers, the media, its own employees and the general public (Šíbl, 2002) [20]. According to Szarková (2007) [19], the corporate image consists of several elements of communication, such as logos, corporate colors, corporate uniforms, clothes and general appearance of employees, their verbal and non-verbal communication, public behaviour, representational items, promotional items, corporate symbols, as well as business cards, head letters, company cars, buildings, office locations and many other aspects (Nagyová, Babčanová, & Košičiarová, 2016) [14].

The product image includes consumers' thoughts regarding the whole product range, which company produces. (Čihovská, Hanuláková, & Lipianská, 2001) [2]. The product image cannot be distinguished from the corporate image. The name of the corporation is part of the corporate brand which represents both the producer and the products (Nagyová, Holienčinová, Košičiarová, & Holota, 2016) [15]. Moreover, the term «image» is closely related to the term «brand». American marketing associations defines brand as a name, title, creative expressions or combination of before mentioned elements. The main purpose is to distinguish one seller or group of sellers from other competitors (Kleinová & Kretter, 2011) [7]. The brand image characterises one selected brand of a particular product and includes experiences and opinions which consumers connect with the brand (Tajtáková et al., 2007) [22]. Moreover, the brand image has its significant impact on the consumer's purchase decision (Šugrová, Šedík, & Svetlíková 2016) [21].

Brand personality and image are known by the impression which is created in the minds of consumers. However, consumers distinguish similar products according to the brand image. (Lesáková, 2007) [11]. The brand represents both the product logo and the value which consumer perceives as an added value to product benefits. First of all, it is an emotional value which exists only in consumers' consciousness. It is generally based on product quality and its attributes (Nagyová, Košičiarová, & Kádeková, 2014) [16]. It is essential to understand how consumers perceive products and brands (Horská & Siringoringo, 2012) [5]. Companies spend huge amount of

money on new product development, promotion and product quality improvement in order to create a strong brand (Nagyová & Sedliaková, 2014) [13]. Brand can be related to a particular country. Each company, operating either in the domestic or foreign markets, has to take into consideration opportunities connected with the country brand and image (Kubicová, Nagyová, & Kádeková, 2012) [10]. In addition, the relationship between the consumer and the brand may change over time (Kádeková & Kubicová, 2012) [6]. The perceived quality leads to the identification of a strong brand by consumers. However, self-brand fitness leads to even stronger brand identification (Razmus, Jaroszyńska, & Palega, 2017) [18].

In today's highly competitive environment, improving consumer loyalty to brands allows companies to provide a comfortable long-term market position. Consumers express their opinions and attitudes by being loyal to a particular brand. The selection of other brands is influenced by other factors. (Amine, 1998) [1].

1.2. Quality of Products and Services

Product quality is one of the decisive factors which have a certain impact on consumers' purchase, therefore several quality labels have been introduced to guarantee the quality and the originality of products. Furthermore, consumers can easily distinguish high quality products and make better decisions related to their purchase (Košičiarová, Nagyová, Holienčinová, & Rybanská, 2016) [8].

The product quality of many new food products is not certain before purchase and consumers are able to assess it only after the consumption of such products (Kubicová & Kádeková, 2012) [9]. Nevertheless, in case of other products, such as jewelry or medicine, this quality remains uncertain even after the purchase because consumers are not able to asses it (Palma et al., 2016) [17]. Moreover, guality can be described through the packaging and services, which means that better packaging and services may lead to the perception of high quality (Guo & Jiang, 2016) [3]. Other authors, among whom are Lewis, Grebitus and Nayga (2016) [12], classify attributes of quality according to search, experience and the so called credence attributes.

The difference between customers' expectations regarding service and the received services is service quality (Ueltschi & Krampf, 2001 [23]; Zeithaml & Parasuraman, 2004 [25]).

Zeithaml, Berry and Parasuraman (1988) [24] stated that service quality is the consumer's assessment of the overall excellence or superiority of the service. They identified four unique characteristics of service quality such as intangibility, inseparability of production and consumption, heterogeneity and perishability.

1.3. Own Attitude to Submitted Problematic

Quality of products and services may be considered as a significant factor that contributes to creating a strong brand, or even a strong corporate image. In today's highly competitive environment, enterprises must continually put more emphasis on building up strong brands with a positive image in the minds of loyal, as well as potential, customers. This is a way to ensure the loyal and satisfied customers. This process is complicated. Therefore, it should be developed in the long term. For this reason, we have decided to examine the impact of the quality of products and services of the selected dairy and to point at its significance in building up a strong brand with a positive corporate image.

2. Data and Methodology

The primary objective of the submitted paper is to examine and evaluate how the quality of products and services affects the brand and the image of the selected dairy. At the same time, we want to point at consumers' satisfaction with the products and services by Milsy JSC, as well as at the overall perception of the brand and corporate image of Milsy. Therefore, the company Milsy JSC is the main object of the study. This company is one of the most important Slovak dairies and focuses on the processing of milk and fresh dairy products. The paper is divided into two parts. In the first part, we provide a theoretical overview of the relevant issues. while the second part of the paper is dedicated to our own research, which was implemented through the anonymous survey. The survey was conducted in January-February 2017 in the Slovak Republic. The results of the survey were our main source of primary information.

A total of 743 respondents with 31% of males and 69% of females took part in the survey. In terms of economic activity, the 743 respondents were represented by 2% of the unemployed, 34% of the employed, 3% of entrepreneurs, 58% of students and 3% of retirees. 538 out of the total number of respondents knew the company Milsy JSC and its products. Based on the sample of respondents, we conducted an analysis by using statistical methods with the results evaluated graphically in Excel. Statistical Analysis System (SAS) was used to carry out the analysis: the Chi-Square Test of Independence, Cramer's V Coefficient and the Kruskal-Wallis test.

To conduct a detailed analysis of the obtained results and to achieve the main objective of the paper, we have formulated following scientific assumptions:

- Scientific Assumption No. 1: We assume that there is a dependency between product quality and the respondents' satisfaction.
- Scientific Assumption No. 2: We assume that there is a dependency between the rate of visits to Milsy stores and the economic activity of the respondents.
- Scientific Assumption No. 3: We assume that there is a dependency between the economic activity of the respondents and the awareness regarding Milsy JSC and its brand.



Fig. 1: Image of Company Milsy according to economic activity Source: Own work based on the data of the survey (2017)

- Scientific Assumptions No. 4: We assume that there is a dependency between the quality of products and services prove Milsy JSC and the frequency of purchasing the Milsy products.
- Scientific Assumptions No. 5: We assume that there is a dependency between the price of products and the frequency of purchasing the Milsy products.

3. Results

Based on the results of the survey, it can be concluded that the main group of respondents was represented by women (69%) living in rural areas (57%) under the age of 26 (66%), with high school education (66%). In terms of economic activities, there were mostly students (58%) and those with net monthly income up to \notin 500 (61%).

As noted in Figure 1, in terms of economic activity, 73% of the unemployed respondents believe that Milsy JSC has built up its positive image in the market of dairy products. However, only 38% of the students agree with this statement. In contrast, none of the unemployed considers the company's image as bad. Meanwhile, 14% of the entrepreneurs do not consider the image of Milsy as good. Based on the above, we can conclude that customers perceive the company's image positively, except for the students who consider its image as partially positive (41%).

In the first part of the analysis, we identified a dependency between satisfaction with products and related services of the company (Question: Are you satisfied with the products and services of Milsy JSC?) and product quality (Question: Do you find Milsy brand positioned on the item you buy a guarantee of quality?). To conduct further research, we used the Chi-Square Test of Independence. The analysis of the results is shown in Figure 2. The results shown in Table 1 demonstrate a dependency between the quality of products and the satisfaction of the respondents (Chi-Square, Prob <0.0001).

Among the respondents who know Milsy JSC, 44 respondents cannot verify the quality of the products and are neutrally satisfied with the company products; 11 respondents are more satisfied than dissatisfied. Only 6 respondents who do not notice the brand of the purchased product are very satisfied with the products of the company they bought. 123 respondents say that product quality is



Fig. 2: Dependency between the quality of products and the respondents' satisfaction with products and services provided by Milsy

Source: Own work based on the data of the survey (2017)

Tab. 1: Results of Chi-Square Test of Independence

Value	Probability	Correlation	Cramer's V coefficient
169.5820	< 0.0001	Yes	0.2807
Source: Own work based on the data of the survey (2017)			

a guarantee of satisfaction and are more satisfied than dissatisfied. Only two respondents consider product quality as partially satisfactory and are more dissatisfied than satisfied. Based on the results of the survey, we can conclude that those respondents, for whom the brand Milsy is the guarantee of quality, are very satisfied.

In the next part of the research, we examined a dependency between the rate of visits to Milsy stores (Question: Have you ever visited Milsy brand store?) and the economic activity of the respondents (Question: What is your economic activity?).

The results of the analysis are shown in Table 2. Based on the results, there is a proven dependency between the rate of visits to Milsy stores and the economic activity of the respondents (Prob = 0.0008).

Based on the analysis, the majority of the respondents who visit Mils stores are employed (41 respondents, or 56.9%). Majority of the students (55.6%) do not attend Milsy stores at all. Moreover, the students (108 respondents, or 63.2%) are the largest group of the respondents whose visits to Milsy stores are least frequent and who have the lowest awareness of the company's stores.

The next part of the research is dedicated to the analysis of the economic activity (Question: What is your economic activity?) and its influence on the awareness of the company (Question: Rate on a scale from 1 to 5 (1 is the best, 5 is the worst), the following factors of perception of Milsy JSC

Tab. 2: Results of Chi-Square Test of Independence		
(dependency between the rate of visits to Milsy stores		
and economic activity)		

Value	Probability	Correlation	Cramer's V coefficient
26.6476	0.0008	Yes	0.1574

Source: Own work based on the data of the survey (2017)

Tab. 3: Results of Kruskal-Wallis	test
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Chi-Square	15.6946
DF	4
Pr > Chi-Square	0.0035

Source: Own work based on the data of the survey (2017)

(awareness of the company and brand). For analysis was used the non-parametric Kruskal-Wallis Test (see Figure 3 and Table 3). The results of the survey proved that the economic activity of the respondents significantly influences their awareness of Milsy JSC (Prob = 0.0035).

The employed (48 respondents or 47.5% of the respondents) show the highest awareness of the company and its brand, whereas the students (48 respondents or 61.5% of the respondents) have a very low awareness of the company and its brand.

In the following part of the analysis, we paid attention to the dependency between the frequency of purchase by the respondents and the quality of products and related services (Figure 4 and Table 4). Rated on a scale from 1 to 5 (1 - the best, 5 - the worst).







Fig. 4: Dependency between the quality of products and services and the frequency of purchase of Milsy products Source: Own work based on the data of the survey (2017)

Tab. 4: Results of Chi-Square Test of Independence

Value	Probability	Correlation	Cramer's V coefficient
79.7108	< 0.0001	Yes	0.1925
Source: C) wn work basec	on the data of	the survey (2017)

The respondents who are most satisfied with the quality of Milsy products (60 respondents or 46.9% of the respondents) purchase related products once a week. The lower quality of the product is, the less likely the respondents purchase such products. Table 4 shows that there exists a correlation between the quality of products and services and the frequency of purchase of products regarding the examined company (Prob < 0.0001).

Table 5 also shows that there exists a dependency between the product price and the frequency of purchase of related products at Milsy (Prob < 0.0001).

Tab. 5: Results of the Chi-Square Test of Independence (dependency between the products price and the frequency of purchase of Milsy products)

Value	Probability	Correlation	Cramer's V coefficient
92.5682	< 0.0001	Yes	0.2074

Source: Own work based on the data of the survey (2017)

4. Conclusions

We consider the quality of products and services to be one of the most important factors when it comes to building up a strong brand and a positive corporate image. By means of the survey and by using the statistical methods, we have analysed consumers' satisfaction with the products and services provided by Milsy JSC. We have also studied the overall perception of the brand and the corporate image of Milsy. We have found that Milsy JSC, its products and related services are identified by 538 out of 743 respondents. The image of the company is perceived as positive by the majority of its customers, except for the students because most of them (41%) perceive the image of the above company as partially positive. Within our research, we set an objective to inquire whether there is a dependency between

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product quality and the respondents' satisfaction with products and related services provided by the company. Based on our statistical analysis, we have confirmed the predicted dependency. Furthermore, we have found out that the guality of Milsy products guarantees satisfaction for 51.0% of the respondents and that these respondents are more satisfied with the products and related services offered by Milsy JSC. We have examined the dependency between the rate of visits to stores and the economic activity of the respondents. We have noted that the dependency exists. We have determined that the majority of the respondents (up to 56.9%), who visit the company's stores, are employed, whereas the company's stores are least often visited by the students (55.6%), a group of the respondents (63.2%) who have the lowest awareness of Mils stores. Further research has proved a dependency between economic activity and the level of awareness of company Milsy and its brand. Based on the research findings, we have proved that such a dependency exists and that the employed have the highest awareness of the company and its brand (47.5%), whereas the students who took part in the survey (61.5%) had the lowest awareness of the company and its brand.

We have examined the dependency between the respondent's frequency of purchase related to the company and the quality of its products and services. We have found out that the predicted dependency exists. Those respondent, who are most satisfied (46.9%), purchase the company's products once a week. We have analysed whether the frequency of purchase at Milsy is affected by the prices of their products. We conclude that there exists a dependency between the price of the products and the frequency of purchase of such products at Milsy. Based on the knowledge gained from our own research, it can be concluded that Milsy JSC promotes satisfaction of its customers by providing quality products and services. We can declare that the quality of products and services is a decisive factor, which is involved in building up a strong brand and a positive image of Milsy JSC. The company should be more oriented on its marketing activities with a view to build up a strong brand and a positive image to attract a younger generation of customers. We suggest that the younger generation's awareness of the company's stores should be increased, because the company's stores are least visited by students (55.6%) who also have the lowest awareness of Milsy stores (63.2%). The students who took part in the survey (61.5%) also have very low awareness of the company and the brand.

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