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Identification of Strategic Position of E-commerce Enterprises in Fashion Industry

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Abstract: The importance of an effective strategy implementation is in e-commerce growing with a development of online shopping. Nevertheless, the practice shows the importance of strategy in e-commerce in the long-term is underestimated. The main purpose of the paper is therefore to identify the strategic position of selected e-commerce enterprises focused on the fashion goods and complementary goods, based on their strategic behavior. The strategic behavior is determined by using on the critical analysis of selected determinants of online shopping behavior. The main research methods to reach the main purpose of the paper are situational analysis and qualitative research using a critical analysis of determinants influencing customer behavior in online shopping. The methods of statistical induction are used to confirm research hypotheses. Finally, the strategic positions of selected e-commerce enterprises in fashion industry are determined. This study identified the strategic position of e-commerce enterprises in fashion industry is affected by determinants of online shopping behavior, however, these determinants are not reflected as equally important. It was also identified that e-commerce enterprises in fashion industry use a balanced strategy, nevertheless, it does not reflect the gradual progressive development of e-commerce industry.

Keywords: strategic behavior; strategic position; fashion industry; e-commerce enterprises; determinants of online shopping behavior

JEL Classification: M00; M39; M19

1. Introduction

The paper deals with the identification of strategic position in online sales of fashion goods and complementary goods in the e-commerce in the Czech Republic considering the identification of determinants of online shopping behavior in the online fashion goods (clothes and complementary accessories). Only limited studies have explored the issue of strategic approach in e-commerce and determinants of online shopping behavior are explored in selected studies (Darsono et al., 2019; Prashant, 2009; Svatošová, 2018; Svatošová, 2020; Richard et al. 2010; Svatošová; 2019b; Svobodová & Rajchlová, 2020; Kim et al., 2018). This study derives from the previous research study (Svobodová & Rajchlová, 2020) dealing with identifying of strategic position of e-commerce enterprises in electronics industry that confirmed these enterprises use the balanced strategic position. This paper therefore aims to confirm or reject if e-commerce enterprises use the same strategic position in other industries. This paper focuses on online fashion sales. The main research question of the study is: what

is the strategic position of enterprises in fashion industry when considering determinants of online shopping behavior?

2. Literary Research

World trade is changing every day, although the rate of change is not the same in all countries (Villa et al., 2018). Enterprises are abandoning traditional commercial methods and are subject to global computer network-based technologies that make it easier to connect with customers and accelerate business (Choshin & Ghaffari, 2017). Through certain strategies, it is possible not only to gain new customers, but also to persuade existing ones to keep returning to the online store, thus these strategies help to increase website attendance, build trust and customer relationships. Successful e-strategies evolve depending on how and what customers buy, how they respond to certain trends, as well as the technologies used in enterprises. Due to the ever-increasing number of online stores, it is essential to understand customer behavior when shopping online, not only to place an order, but also to ensure future loyalty (Chadt, 2017; Hallikainen & Laukkanen, 2018). Nevertheless, only insignificant studies (Zhao et al., 2020; Wang et al., 1010; Zhao et al., 2019) deal with the factors that impact the effective process of strategic management.

Determinants of online shopping behavior are crucial in the effective and successful process of strategic management in e-commerce (Onate, 2016; Yi, 2016; Svatošová 2018; Svatošová, 2020). Online shopping behavior is a key element in reaching business objectives and is affected by series of external and internal factors. Every enterprise should identify its strategic approach in e-commerce considering its portfolio and business environment, such as concepts, principles, and detailed plans for its development. It is also essential to explain methods for assessing the strategic approach (Chen et al., 2014; Svatošová, 2019a). The quality of services is an important factor influencing customer satisfaction. The feeling of trust, evoked by the exceptional level of service, convinces customers to revisit a specific store. Many studies suggest that the quality of electronic services depends primarily on the security of confidential information and on the performance of websites (Shafiee & Bazargan, 2018). As e-shops process a huge amount of information about their customers, their security is one of the most important specifics of online shopping.

Many potential customers do not complete their purchase precisely because of the lack of security that could lead to the transfer of sensitive information (such as credit card numbers). Therefore, as part of minimizing losses, many online retailers have implemented certain measures to verify the identity of the customer (Pilík et al., 2017). As customers are willing to share their experiences with business services and at the same time are interested in other consumers' satisfaction with the goods they are interested in, e-shops allow comments and ratings on their websites or social networks. As a result, they increase the chance of a site visitor becoming a customer (Chadt, 2017).

3. Methodology

3.1. Objectives and Research Methods

The main purpose of the study is to identify the strategic position of e-commerce enterprises oriented on the online sale of fashion goods and complementary goods. The partial aim is to identify the determinants of online shopping behavior in fashions and thus identify the strategic behavior of selected e-commerce enterprises.

The research methods are used to reach the aims of the study (based on the previous research study Svobodová and Rajchlová (2020)): Situational analysis – this method is used to identify the determinants of online shopping behavior in each e-commerce enterprise and current situation of enterprise; Quantitative research—this method calculates with the quantitative and numerical data and use a critical analysis of data on the scale 0–5 (0 – the worst evaluation, 5 – the best evaluation). Critical analysis and determined scoring is used for 11 identified determinants of online shopping behavior that have impact on strategic behavior of e-commerce enterprises in fashion industry.

3.2. Research Hypotheses

To reach the purpose of the study, the main research hypotheses are recognized, based on the findings of a previous studies (Svatošová, 2020; Svobodová & Rajchlová, 2020):

Research hypothesis (H1): E-commerce enterprises in fashion industry use a balanced strategy in most cases (using the critical analysis of determinants of online shopping behavior).

Research hypothesis (H2): The strategic position of e-commerce enterprises in fashion industry is not influenced by determinants of online shopping behavior (using the Kruskal–Wallis test, details see Results and Discussion).

Research hypothesis (H3): Determinants of online shopping behavior in fashion industry are rated as equally significant (using the Friedman test, details see Results and Discussion).

3.3. Research Sample

Due to the constantly growing interest in buying clothes and accessories over the Internet and the fact that this range is the most frequently offered e-shops in the Czech Republic, e-shops selling this type of fashion goods were chosen for the analysis and this research. Selected e-commerce enterprises had to meet the following criteria in particular: (1) Orientation exclusively to the B2C market in e-commerce the Czech Republic; (2) Legal form of enterprise – joint stock company or limited liability company; (3) Existence on the market for at least 7 years; (4) Membership in the Association for Electronic Commerce (APEK) / granted "APEK Certification - Certified Shop" or granted certificate "Verified by customers!" from Heureka.cz.

Due to the above-mentioned restrictive criteria, the popular shopping advisor Heureka.cz was used to select specific e-shops, which for individual e-shops states not only the overall rating from customers, but also whether the store has a "Verified by customers!"

certificate. As it was not possible to limit the list of e-shops only to those that offer clothing and accessories in fashion industry, the selection was considerably more difficult. Therefore, only e-shops that have at least 1,000 reviews from customers and a certificate were considered into research. If the e-shop focused on the sale of clothing and accessories in fashion industry, it was necessary in the next step to find out whether it met the other criteria mentioned. To supplement this, the author of the research was also interested in whether selected e-shops are evaluated on the website of the purchasing advisor Zboží.cz. The other information about research sample see Results and Discussion.

4. Results and Discussion

4.1. Main findings and Strategic Position Identification

The determinants of online shopping behavior are determined based on the previous studies (Svatošová, 2020; Svobodová & Rajchlová, 2020; Hallikainen and Laukkanen, 2018; Prashant, 2009; Richard et al., 2010), which identify the strategic behavior and further strategic position of e-commerce enterprises in the fashion industry: *(1) Reviews of e-shops; (2) Complaints; (3) Certificates and security; (4) Advertising and communication—on social networks, chat, phone line; (5) Product price; (6) Website – language possibilities, comparative possibilities, adaptation, disturbing elements; (7) Product description, filtering and goods ordering; (8) Payment methods; (9) Transport – number of transport options; (10) Discounts – in action, loyalty program and volume discounts; (11) Additional services – payments after testing of goods, extended return period of goods, possibilities of exchanging goods, free shipping*.

The identified determinants are scored on the scale 0–5 (1 – the worst evaluation, 5 – the best evaluation) using the critical analysis of data, i.e. the qualitative data are converted into the numerical value for each e-commerce enterprises in research sample. Finally, **61 e-commerce enterprises** have been selected that create the representative sample in fashion industry and divided according to their size (according the division of European Commission), as follows: "*micro enterprises (up to 10 employees, annual turnover up to EUR 2 mil., small enterprises (up to 50 employees, annual turnover up to EUR 10 mil.), medium enterprises (up to 250 employees, annual turnover up to EUR 50 mil.)*". Details see Table 1. The study shows the larger enterprise is, the higher the scoring of identified determinants is reached.

Figure 1 illustrates the average evaluation of each determinant identified above and distinguished according to the size of enterprise. On average, based on critical analysis, large enterprises are scored higher than the other groups of e-commerce enterprises. Micro enterprises are scored as the worst group. The same results are reached in previous studies (Svatošová, 2018; Svatošová 2019a; Svatošová, 2020; Svobodová & Rajchlová, 2020). On average, the best results were scored for: review of e-shops (4.81), website (4.28), and complaints (4.27). The worst results were scored for: discounts (3.61), product price (3.63) and product description (3.66).

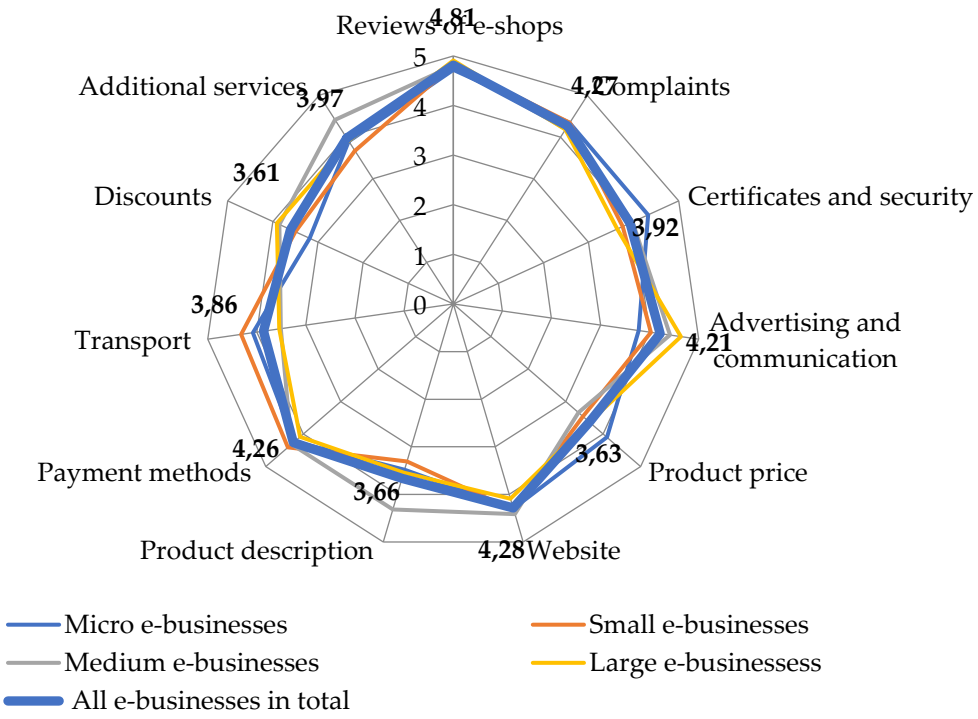

Figure 1. Quality of factors of online shopping behavior according to the business size. Source: own.

Finally, total of 11 determinants were assessed in the study. When all 11 determinants have been summarized for each e-commerce, it was possible to reach maximum 55 points. This final scoring has been used for determination of strategic position of e-commerce enterprises in fashion industry according to the following evaluation (Svobodová & Rajchlová, 2020):

- **"52–55 points: Progressive strategic position**: *This strategy is characterized by the ability to respond quickly to current customer needs and the ability to adapt to new trends. They invest in innovations and new technologies, expand their portfolio, try to penetrate foreign markets, or buy other companies and develop. High profitability and low liquidity is typical here.*
- **29–41 points: Balanced strategic position**: *Enterprises with this strategy want to develop, but they do not have as much money to implement and do not take large risks.*
- **15–28 points: Stabilization (conservative) strategic position**: *These enterprises are characterized by a conservative approach and do not have enough capital for further development. They focus on the stabilizing the online market and customer base. High liquidity is typical for this strategy*
- **0–14 points: Crisis strategic position**: *With this approach, the business tries to stay in the market. It does not invest in innovation and new technological possibilities. Business struggles with the low profitability and liquidity, low market share, and customer base."*

Table 1 reflects the assessing the strategic position of enterprises in e-commerce allocated according to their size. In summary, a balanced strategic position prevails (44.26%) in all groups of enterprises in e-commerce. Then the e-commerce strategic behavior focused on

stabilization (conservative) strategic position (42.62%) prevails. Finally, only 9.81% of enterprises in e-commerce use a progressive strategic position. The crisis strategic position is used by only 4.91% of enterprises in e-commerce.

Table 1. Strategic position of enterprises in e-commerce in the fashion industry. Source: own.

Strategic Position of E-Enterprises	Progressive strategic position	Balanced strategic position	Stabilization (Conservative) strategic position	Crisis strategic position	In summary
Micro e-enterprises	0	1	2	0	3
Small e-enterprises	1	15	7	1	24
Medium e-enterprises	3	8	16	2	29
Large e-enterprises	1	3	1	0	5
E-enterprises in total (61)	5	27	26	3	61
E-enterprises in total (in %)	9.81%	44.26%	42.62%	4.91%	100%

4.2. Hypotheses Verification and Final Discussion

The previous chapter 4.1 identified the dominating strategic position of e-commerce enterprises in fashion industry is a balanced strategic position. Therefore, we can confirm the hypothesis H1: **E-commerce enterprises in fashion industry use a balanced strategy in most cases** (using the critical analysis of determinants of online shopping behavior). The same results have been reached in previous study (Svobodová & Rajchlová, 2020) with e-commerce enterprises with online sales of electronics. The other studies derived from a prerequisite the e-commerce enterprises should apply a progressive strategic position that reflect the gradual progressive development of e-commerce industry (Chen et al. 2014; Svatošová 2019b; Ballestar et al., 2018).

The Shapiro-Wilk test is used to decide if parametric or non-parametric test can be selected for hypotheses verification H2 and H3. This calculation identified the selection did not derive from a normal probability distribution at the significance level of $\alpha = 0.05$, since $p \leq \alpha$ (using the software Statistica), therefore only non-parametric tests can be used. The hypotheses H2 and H3 are verified at the significance level $\alpha = 0.05$, i.e. the minimum level where the null hypothesis cannot be confirmed, as $p \leq \alpha$. The confirmation of hypotheses is calculated by equating the p-value and the significance level α.

The hypothesis H2 is tested with a help of the Kruskal–Wallis test. Table 2 demonstrates an example for verification of the selected 11 determinants in e-commerce in relation to the strategic position of e-commerce enterprises, the example is reviews of e-shops. Based on testing, null hypothesis is rejected and therefore we can conclude: **the strategic position of e-commerce enterprises in fashion industry is influenced by determinants of online shopping behavior.** The similar results were reached in previous study (Svobodová & Rajchlová, 2020; Svatošová, 2020). Detail calculation of Statistica software of each determinant of online behavior of p-values is following:

(1) Reviews of e-shops p = 0.9877;

(2) Complaints p = 0.8194;

(3) Certificates and security p = 0.3278;

(4) Ad and communication p = 0.9534;
(5) Product price p = 0.7396;
(6) Website p = 0.9828;
(7) Product description p = 0.8990;
(8) Payment methods p = 0.0029;
(9) Transport p = 0.4719;
(10) Discounts p = 0.0010;
(11) Additional services p = 0.8986;

Table 2. Kruskal–Wallis ANOVA founded on order; Example: Reviews of e-shops according to type of strategic position. Source: own (in the Statistica).

Dependent Variable: Type of Strategic position	**Independent (Group) Variable: Type of Strategic Position) Kruskal–Wallis Test: H (4, N = 61) = 0.3312065, p = 0.9877**		
	Number of Valid	Sum of Order	Average Order
Progressive strategic position	3	5448	106.823529
Balanced strategic position	24	9,024.5	106.170588
Conservative strategic position	29	4,225.5	103.060976
Crisis strategic position	3	1,168.5	97.375

The hypothesis H3 is tested with a help of the Friedman's test at the significance level of α = 0.05. Since p = 0.0000 i.e., $p \leq \alpha$., therefore, the null hypothesis is rejected, i.e. we can concluded that **determinants of online shopping behavior in fashion industry are not rated as equally significant**, see Table 3. The similar results were reached in previous study (Svobodová & Rajchlová, 2020). Nevertheless, the researches revealed the determinants of online shopping behavior should be reflected as equally important (Wang et al., 2010; Chenxu et al., 2017; Prashant, 2009; Yanes-Estévez et al., 2018; Richard et al., 2010;).

Table 3. Friedman's ANOVA and Kendall's compliance coefficient: Factors of online shopping behavior. Source: own in the Statistica).

Variables of Factors of Online Shopping Behavior	**ANOVA Chi-Qu. (N = 61) = 27.70730 p = 0.0000 Compliance Coefficient = 0.00947, r = 0.00471**			
	Average Order	Sum of Order	Average Mean	Standard Deviation
(1) Reviews of e-shops	7.784689	1,627.000	3.019139	1.424247
(2) Complaints	7.767943	1,623.500	3.000000	1.376311
(3) Certificates and security	7.851675	1,641.000	3.023923	1.419101
(4) Ad and communication	7.851675	1,641.000	3.038278	1.347529
(5) Product price	8.064593	1,685.500	3.124402	1.391536
(6) Website	7.995215	1,671.000	3.057416	1.389021
(7) Product description	8.913876	1,863.000	3.392344	1.340615
(8) Payment methods	8.985646	1,878.000	3.440191	1.299967
(9) Transport	7.971292	1,666.000	3.114833	1.439892
(10) Discounts	8.045455	1,681.500	3.095694	1.441297
(11) Additional service	7.796651	1,629.500	3.033493	1.408705

5. Conclusions

This paper extended the findings from the previous study (Svobodová & Rajchlová, 2020) focused on the enterprises in e-commerce in online sales of white electronics. This study revealed the strategic position of e-commerce enterprises in fashion industry is also influenced by determinants of online shopping behavior such as in the electronics industry. This result indicate determinants of online shopping behaviors are considered when designing and implementing strategy in the fashion industry in e-commerce. It was also identified that determinants of online shopping behavior are not valued as equally significant, nevertheless, according to previous studies they should be considered as equally important. Finally, enterprises in e-commerce use a balanced strategic position in most cases (44.26%). However, the strategic position should reflect the gradual progressive development of e-commerce industry. The progressive strategic position is applied only in 9.81% of cases. We can conclude, there is a difference between the progressive development of e-commerce and the strategic position of e-commerce enterprises in fashion industry, i.e. no wide-ranging strategic approach is applied in fashion industry in e-commerce. Although, the main goal of this study has been fulfilled, some limitations can be identified. This study is oriented only on e-commerce enterprises in the fashion industry and complementary accessories in the comparison with the study focused on e-commerce enterprises with online sales of electronics. Therefore, the other studies will focus on the other industries in e-commerce to deal with and compare the findings from these studies. The main benefit of this study is based on the critical analysis of determinants of online shopping behavior in the fashion industry and determination of strategic position of e-commerce enterprises in the selected industry.

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