EXPLORING RELATIONSHIP BETWEEN BRAND EQUITY AND CUSTOMER LOYALTY ON PHARMACEUTICAL MARKET

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ABSTRACT: *By maintaining continuous satisfaction and high level of the brand's equity the customers express the intention of long-term buying of product and their choice spreads on other products in the organization's portfolio. By developing a brand which represents value to the customers, the customers' satisfaction will grow reinforcing relationship between satisfaction and brand development. Purpose of this paper is to obtain insight about the relationship between elements of brand equity and customer loyalty among self-medication products. The research results show that elements of brand equity do increase customer brand loyalty. But not all elements do contribute in the same manner.*

1. INTRODUCTION

It is recognized that pharmaceutical industry is quite competitive. Due to that fact one of the possibilities is to offer customers more value with their products and services. If an organization is to manage its presence on the market as well as to continuously grow it is needed to carefully manage value they provide to the customers. This value can be provided through organizations' brands. Moreover, creating value for customers is possible through enhancing customer satisfaction. So, for a customer to be satisfied an organization has to offer more value for customers (Day, 1998) and more value than competitors (Brannback, 1997). Consequently, enhanced customer satisfaction will create customer loyalty (Oliver, 1999).

But value an organization provides to the customers can be enhanced through brand equity. As brand equity enhances value both through individual-level outcomes and market-level outcomes (Raggio & Leone, 2007). At individual-level it enhances word of mouth, attitudinal loyalty and commitment. While at market-level it enhances behavioral loyalty, sales volume and lowers cost in different organizational resources. Therefore, brand equity is related to customer satisfaction and consequently it boosts customer loyalty.

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Purpose of this paper is to obtain insight about the relationship between elements of brand equity and customer loyalty among self-medication products. The aim of this paper is to provide more information how customer loyalty in the pharmaceutical market can be managed. Paper consists of theoretical background related to customer loyalty and brand equity, empirical research with data analysis and also it offers implications for managers in the pharmaceutical organizations.

2. THEORETICAL BACKGROUND

2.1. CUSTOMER SATISFACTION AND CUSTOMER LOYALTY

The success of the organization in highly competitive surroundings is determined by its ability to create value for the customers. In the very beginning of that process of creating value is creating and developing customer's satisfaction and then their maintaining through the customers' lifetime. By creating satisfaction, the value (Wang & Lo, 2003) is developed and given to the customers. Exactly this value represents the reason why customers decide to use a certain product/service of a certain organization.

Satisfaction is considered in two ways. It can be considered as the result of one transaction (Fornell, 1992, Oliver & Linda, 1981, Westbrook & Oliver, 1991, Shiv & Huber, 2000) whereby the customer's expectancy which precedes the interaction is compared with the gained product characteristics, its use or experience. In other considered way gained product characteristics, expectancy, past situations experience (Anderson, Fornell & Lehmann, 1994, Storbacka, Strandvik & Grönroos, 1994, Johnson, Anderson & Fornell, 1995) are compared to the past satisfaction. In other words we can say that the satisfaction reached during all these interactions with the organization is compared. Elements influencing satisfaction are connected to the product, that is, its functional characteristics such as: perceived quality (Zeithaml, 1988), product value (Zeithaml, 1988, Oliver, 1996), price (Anderson, Fornell & Lehmann, 1994), time (Wang & Lo, 2003), perceived product performance (Andeassen, 1994). Emotional connection, that is, experience (Anderson, Fornell & Lehmann, 1994), expectancy (Johnson, Anderson & Fornell, 1995) and experience (Johnson, Anderson & Fornell, 1995) with the product also influence satisfaction.

The organizations have realized that it is necessary to manage customers' satisfaction and make long-term connections to them. This is possible in the way to build the customer loyalty. Satisfied customers do not automatically become loyal. In order to develop customer loyalty organizations should encourage their satisfaction because it is satisfaction (Fornell, 1992, Diller, 2000, Hill & Alexander, 2003), providing higher value (Reichheld, 2001) which encourages the feeling of satisfaction, as well as developing and intensifying the connections with customers' (Fornell, 1992, Meyer & Blümelhuber, 2000) acts like encouragement for developing their loyalty. The organization should focus on keeping loyal customers (Brink, 2004) and introduce the system for managing them.

The customer loyalty is characterized by establishing and maintaining the connections with the customers, the repeated buying of the products and/or services, a higher value

of buying, purchasing the complete product range, tolerance for higher prices, recommendation to others and immunity to attractiveness of the competition (O'Brien & Jones, 1996, Griffin, 1997, Oliver, 1999, Meyer & Blümelhuber, 2000). It is considered that if the customers constantly buy a certain brand regardless of the superior characteristics of the competition, price and benefits the brand, value really exists (Rickardsson, Stark & Stierna, 2005). A strong loyalty which can turn into loyalty to the brand enables an easier bearing of changes and possible negativities connected to the brand (Keller & Lehmann, 2003).

2.2. BRAND EQUITY

The concept of brand equity is not unambiguously defined, but it can be defined as:
- assets or liabilities connected to the brand name and brand symbol which are added to the product or service (Aaker & Joachimshaler, 2000)
- perceived quality of the palpable and impalpable brand components (Kamakura & Russel, 1991 in Lassar, Mitall & Sharma, 1995)
- the customers' perception of the overall superiority of the product marked by a certain brand in comparison to other brands (Lassar, Mitall & Sharma, 1995)
- the difference between the overall tendency to the brand of a certain producer and its tendency based on objective measurement (Park & Srinivasan, 1994)
- added value for the organization, dealers or customers to whom the brand enriches the product (Farquhar, 1990)
- financial result as a reflection of the management capability to support the brand's strength through tactical and strategic actions for ensuring higher current and future profit and for lowering the risk (Schocker & Srivastava, 1991 in Lassar, Mitall & Sharma).

The brand equity consists of the brand's strength and of the brand value. The brand's strength is a group of associations and behaviour of the brand's customers, members of the channel and the organization that owns the brand and that enables the brand to have sustainable and differentiated competitive advantages (Lassar, Mitall & Sharma, 1995). The brand value is derived from the brand assets which consists of the brand reputation, its image, perceived quality, idea, closeness and liking to the customers (Kapferer, 1998), the brand's loyalty, the associations made by the brand and other corresponding assets connected to the brand (patents, trade mark, relations in the distribution channel) (Pappu, Quester & Cooksey, 2005), and it is based on reputation and goodwill (Czinkota, 2000).

The brand equity is, according to Aaker (in Keller, 1993), whose approach uses also Chen (2001), connected to the level of recognizing the brand, the quality noticed, the associations connected to the brand and elements of the brand's asset. The customer loyalty to the brand is seen as the core of its value.

Developing the awareness of a brand is one of the elements of developing its equity and the basic presumption of developing customer loyalty. The importance of the brand's awareness is seen in its influence onto making a decision on purchase because a higher awareness means a higher probability that the brand will be included in the group of brands

taken into consideration at the purchase, and the awareness of the brand can influence the creating of associations to the brand which create the image of the brand (Keller, 1998).

The habit of most customers is to buy or use well-known brands because they trust them, and thereby their loyalty is also increased. Well-known brands enable the customer to feel safer in using the product and increase the possibility of the brand to be accepted and chosen (Rickardsson, Stark & Stierna, 2005). In highly competitive surroundings offering the exclusive value of a product is one of the possibilities to feel an organization different from competition (Virvilaite & Jucaityte, 2008). This can be achieved by creating the brand equity which as a consequence creates product value for the customer.

Perceived quality is the next element in the range of influences on the development of the brand equity and is defined as the customer's judgment on the general quality or superiority of the product (Kirmani & Zeithaml, 1993). The brand equity is positively connected to the loyalty to the brand and customers do not trust to brands whose quality is changeable (Lassar, Mittal & Sharma, 1995). Yet, it happens very often that the perceived quality is not the real product quality but the customer's subjective evaluation of the product (Zeithaml, 1998). So, the quality often represents the image created in the customer's mind. When customers do not have enough knowledge or information to estimate them by quality then the price is imposed as its important indicator which is in the positive relation to the perceived quality (Lilien, Kotler & Moorthy, 1992).

Developed brand equity brings many benefits to the organization. These benefits include increase of probability of choosing the brand which leads to customer loyalty to the certain brand (Pitta & Katsanis, 1995) as well as the possibility of spreading the brand on other product categories (Rajh, 1995). Furthermore, the market value increases the readiness of the customers to pay premium prices (Barwise, 1993), efficiency of the marketing communication (Keller, 1993), inflexibility of the customers to the price increase (Simon & Sullivan, 1993), and decreases the organization's vulnerability considering the marketing activities made by the competition (Smith & Park, 1992). Generally speaking one can say that the brand equity represents a source of sustainable competitive advantage (Bharadwaj, Varadarajan & Fahy, 1993).

Furthermore, different elements of brand equity such as brand awareness, perceived quality and trust (Washburn, Till & Priluck, 2004) together can enhance value customer can perceive the brand is giving and consequently influence customer loyalty formation. So, it is proposed that: *H1: Elements of brand equity influence customer loyalty creation.*

3. EMPIRICAL RESEARCH

3.1. Methodology and research instrument

In order to test proposed hypothesis a research was conducted where elements of brand equity, that is brand awareness, perceived quality and trust were explored in relationship with customer loyalty. On pharmaceutical market research concentrated just on sort of available products, self-medication products.

The research instrument consisted of two parts. First part consisted of 5 degrees Likert scales by which the opinions of the respondents were questioned related to the products for self-medication in the category of pain killers. Second part consisted of questions related to the mostly used and bought brands as well as brands they remember. These questions tested the brand recognition in category of pain killers.

For the operationalization of variables, several scales from the literature were used. In exploring brand awareness and perceived quality insights from Washburn, Till and Priluck (2004) were used. For trust insights from Lassar, Mittal and Sharma (1995) and from customer loyalty insights form Chitty, Ward and Chua (2007) as well as Homburg and Giering (2001) were applied. They were all modified and adapted to the research context of pharmaceutical market.

Self-medication products are a wide category consisting of several groups like, pain-killers, cold and temperature relievers, products for sore throat, products for solving cough and vitamins and minerals. Hence, this research focused just on one category that is the category of pain-killers.

In the conducted field research students of the Faculty of Economics in Rijeka, Croatia were answering the questionnaires during May 2008. A total of 275 questionnaires were collected. Analysis was done by SPSS ver. 21 and MS Excel using several univariate and multivariate statistical methods.

3.2. Results and hypotheses testing

By questioning the remembering and purchasing certain brands the following results were achieved as shown in the Table 1.

Table 1. *Most recognized and most often bought brands*

Brands that you remember		Brands that you most often buy	
Brand	Percentage of answers	Brand	Percentage of answers
Neofen	17.02%	Neofen	26.63%
Lekadol	14.88%	Lekadol	17.16%
Voltaren	13.74%	Voltaren	9.47%
Andol	10.87%		
Kafetin	9.17%		

Source: the authors' research

The given data point at the fact that the highest percentage of respondents (17.02%) remember Neofen and that the highest percentage of respondents (26.63%) also most often buy it. As one of the characteristics of strong brands by Aaker is connected to the level of recognizing the brand (Chen, 2001), the further analysis was based only on the answers of the respondents who mentioned the before mentioned brands. This is done in order to focus and explore just the consumers that buy and have noted these brands (Neofen, Lekadol and Voltaren) as their first brand. Hence, retaining 121 cases for further analysis.

To determine the underlying structure among variables in the research, exploratory factor analysis was conducted. Hence, common factor analysis with oblimin rotation and Kaiser Normalization was used. After analysis was performed, the KMO measure of sampling adequacy was at an acceptable level (0.779), and the Bartlett test of sphericity was significant. Analysis exposed three underlying factors. Results of the exploratory factor analysis, as well as the results of construct reliability testing, are presented in Table 2.

Table 2. *Factor and reliability analysis with construct descriptives*

Items	Factor loadings		
	Brand awareness	Customer loyalty	Perceived quality
I can't remember others expect my favourite brand	0.502		
Favourite brand appearance	0.848		
Favourite brand logo	0.822		
Favourite brand can be easily recognized	0.848		
Quickly remember packaging of favourite brand	0.820		
Quickly remember commercial for favourite brand	0.661		
Use other products from the same producer		0.625	
Continue to use the same brand		0.565	
Recommend brand to others		0.884	
With using product I get quality I expect			0.616
Product is reliable			0.810
% explained variance	37.193	13.925	6.310
Eigenvalues	4.476	1.923	1.124
Mean	3.89	3.621	3.671
Cronbach alpha	0.875	0.705	0.702

Note: Rotation converged in 5 iterations.

Source: the authors' research

Analysis shows that brand awareness, perceived quality and customer loyalty can be used for further analysis. Cronbach alphas are above accepted level of 0.7 (Hair et al, 2006) that is used as adequate value of reliability of research instrument for exploratory research. Also, percentage of variance explained is 57.42% indicated that more than half of variance in explored phenomenon is explained by these factors. Furthermore, analysis included also element of trust that is researched with just one item "I buy brands of certain producer because I trust them".

To explore relationship between brand equity elements and customer loyalty a multiple regression method is applied. In this analysis customer loyalty is used as a dependent variable, whereas brand awareness, perceived quality and trust are used as independent variables. Enter method was used for entering independent variables into regression model. Results are presented in Table 3.

Table 3. *Results of multiple regression analysis*

Independent variables	Coefficients		
	B	beta	t-value
Constant	1.627 (0.500)		3.252**
Brand awareness	0.218 (0.105)	0.267	2.088*
Perceived quality	0.347 (0.131)	0.323	2.650**
Trust	0.006 (0.101)	0.008	0.056
R^2		0.216**	
R^2 (adj)		0.178	
F		5.775**	

Note: N=67, **p<0.01, *p<0.05, Standard errors are given in parenthesis.

Source: the authors' research

Conducted analysis show that brand awareness (β=0.267) as well as perceived quality (β=0.323) can serve as brand equity elements that can positively influence customer loyalty. Furthermore, perceived quality has greater influence than brand awareness. The analysis also shows that trust is not an important predictor in this proposed modal as it influence is minor. F-value is statistically significant at 0.1% level. But, relatively small R^2 can be noticed.

According to the conducted analysis this we can conclude that the research results point at the connection of brand equity elements, such as brand awareness and perceived quality, as predictors of customer loyalty. Trust is found not to be an important element of brand equity that influences customer loyalty in Croatian pharmaceutical market. Therefore, as two of three explored brand equity elements influence customer loyalty formation the hypothesis can be confirmed.

4. CONCLUSION

The organizations keep on focusing their activities on creating value for the customers. This value creating is realized through giving satisfaction and finally through developing customer loyalty to the brand. Satisfied customers show signs of loyalty through the process of value exchange with the organization and they are shown in future purchase intentions. As loyalty expressed through future intensions of purchasing contributes to the business result of the organization it can be concluded that developing brands with strong brand equity is important for the sustainability and progress of doing business of each organization.

Research also has several practical implications that can be used by marketing and brand managers. Therefore, for enhancing customer loyalty an organization can work on brand awareness among its customers. It is important to enhance brand awareness as its perception and recognition among present and potential customers is contributing to the customer loyalty and consequently better business results. Also, brand awareness adds to the respect of brand in high competitive pharmaceutical market. This can be done through several marketing communication methods that will make certain brand more visible on the market such as advertisements in point of sales or in magazines. Perceived quality of a brand has to be maintained and nurtured as its quality and effectiveness in category of pain killers is important for customers. Moreover, trust seems not important element in enhancing customer loyalty but this has to be taken with constraints as if a customer doesn't trust the brand in a way it is efficient in solving problems he won't be prepared to buy it again. Therefore, as customer loyalty creates positive business results it can be seen that enhancing brand equity elements will consequently also contribute to these positive business results.

The basic limitation can be found in applying the research results on the younger population. Also, maybe some elements of brand equity were not adequately explored, such us trust, and therefore having limited implications. Furthermore, limitation is seen in conducting research only in Croatia. It is considered that the future researches should be done on other age groups in order to get insight in the validity of the hypotheses for the different groups as well. It is also considered that it would be meaningful to make a research on other self-medication product groups and confirm if there are differences among the self-medication product categories in order to get a complete view about the brand development in the self-medication products market. Also, it is possible to extend research to other neighbouring countries, like Bosnia and Herzegovina or Slovenia and to explore if pharmaceutical market is different in those countries.

REFERENCES

Aaker, D.A. & Joachimshaler, E. (2000). *Brand Leadership.* London: Simon & Schuster.

Aaker, D.A. & Biel, A.L. (ed.) (1993). *Brand Equity & Advertising, Advertising s Role in Building Strong Brands.* Hillsdale: Lawrence, Erlbaum Associates.

Andeassen, T.W. (1994). Satisfacion, Loyalty and Reputation as Indicators of Customer Orientation in the Public Sector. *International Journal of Public Sector Management,* 7 (2), 16-34.

Anderson, E.W., Fornell, C. & Lehmann, D.R. (1994). Customer Satisfaction, Market Share and Profitability: Findings from Sweden. *Journal of Marketing,* 58 (3), 54-67.

Barwise, P. (1993). Brand equity: snark or boojum?. *International Journal of Research in Marketing,* 10 (1), 93-104.

Bharadwaj, S.G., Varadarajan, R.P. & Fahy, J. (1993). Sustainable Competitive Advantage In Service Industries: A Conceptual Model and Research Proposition. *Journal of Marketing,* 57 (4), 83-99.

Brannback, M. (1997). The Knowledge-based Marketing Concept – a Basis for Global Business. *Human Systems Management,* 16 (4), 293-300.

Brink, A. & Berndt, A. (Ed.) (2004). *Customer Relationship Management & Customer Service.* Landsowne: Juta and Co.

Chen, C.H.A. (2001). Using free association to examine the relationship between the characteristics of brand associations and brand equity. *Journal of Product and Brand Management,* 10 (6), 439-450.

Chitty, B., Ward, S., & Chua, C. (2007). An application of the ECSI model as a predictor of satisfaction and loyalty for backpacker hostels. *Marketing Intelligence & Planning,* 25 (6), 563-580.

Czinkota, M.R. (Ed.) (2000). *Marketing: Best Practices.* Forth Worth: The Dryden Press.

Day, G.S. (1998). What Does it Mean to be Market-Driven?. *Business Strategy Review,* 9 (1), 1-14.

Diller, H. (2000). Customer loyalty: Fata morgana or realistic goal? Managing relationships with customers. In Hennig-Thurau, T. & Hansen, U. (Eds.), *Relationship marketing: Gaining Competitive Advantage through Customer Satisfaction and Customer Retention* (pp. 29-48). Berlin: Springer.

Farquhar, P. (1990). Managing Brand Equity. *Journal of Advertising Research,* 30 (4), RC7-RC12.

Fornell, C. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing,* 56 (1), 6-21.

Griffin, J. (1997). *Customer Loyalty – How to Earn It, How to Keep It.* San Francisco: Jossey-Bass Publishers.

Hair, J.F. Jr., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate Data Analysis* (6th ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.

Hill, N. & Alexander, J. (2003). *Handbook for Measuring Customer Satisfaction and Loyalty.* New Delhi: Infinity books.

Homburg, C. & Giering, A. (2001). Personal characteristics as moderators of the relationship between customer satisfaction and loyalty-an empirical analysis. *Psychology & Marketing,* 18 (1), 43-66.

Johnson, M.D., Anderson, E.W. & Fornell, C. (1995). Rational and Adaptive Performance Expectations in a Customer Satisfaction Framework. *Journal of Consumer Research,* 21 (4), 695-707.

Kapferer, J. N. (1998). *Strategic Brand Management: Creating and Sustaining Brand Equity Long Term* (2nd ed.). London: Kogan Page.

Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing,* 57 (1), 1-22.

Keller, K. L. (1998). *Strategic Brand Management: Building, Measuring and Managing Brand Equity.* New Yersey: Prentice Hall.

Keller, K.L. & Lehmann, D.R. (2003). How do brands create value. *Marketing Management,* 6, 26-31.

Lassar, W., Mittal, B. & Sharma, A. (1995). Measuring customer based brand equity. *Journal of Consumer Marketing,* 12 (4), 11-20.

Lilien, G.L., Kotler, P. & Moorthy, K. S. (1992). *Marketing Models.* New Yersey: Prentice Hall.

Meyer, A., & Blümelhuber, C. (2000). Relationship marketing success through investments in services. In Hennig-Thurau, T. & Hansen, U. (Eds.), *Relationship marketing: Gaining Competitive Advantage through Customer Satisfaction and Customer Retention* (pp. 107-126). Berlin: Springer.

O'Brien, L. & Jones, Ch. (1996). Do Rewards Really Create Loyalty?. In Reichheld, F.F. (Ed.), *The Quest for Loyalty: Creating Value through Partnership* (pp. 197-210). Boston: Harvard Business Review Book.

Oliver, R.L. (1996). Varieties of Value in the Consumption Satisfaction Response. *Advances in Consumer Research,* 23 (1), 143-147.

Oliver, R.L. (1999). Whence Consumer Loyalty. *Journal of Marketing,* 63 (Oct.), 33-44.

Oliver, R.L. & Linda, G. (1981). Effect of Satisfaction and Its Antecedents on Consumer Preference and Intention. *Advances in Consumer Research,* 8 (1), 88-93.

Pappu, R., Quester, P.G. & Cooksey, R.W. (2005). Consumer - based brand equity: improving the measurement - empirical evidence. *Journal of Product and Brand Management,* 14 (2/3), 142-154.

Park, C.S. & Srinivasan, V. (1994). A Survey Based Method for Measuring and Understanding Brand Equity and its Extendibility. *Journal of Marketing Research,* 31 (3), 271-288.

Pitta, D.A. & Katsanis, L.P. (1995). Understanding brand equity for successful brand extension. *Journal of Consumer Marketing,* 12 (4), 51-64.

Raggio, R.D. & Leone, R.P. (2007). The theoretical separation of brand equity and brand value: Managerial implications for strategic planning. *Brand Management,* 14 (5), 380–395.

Rajh, E. (1995). Utjecaj elemenata marketinškog miksa na tržišnu vrijednost marke [Influence of marketing mix elements on brands' market value]. *Privredna kretanja i ekonomska politika [Economic trends and economic policy],* 102, 30-59.

Reichheld, F.F. (2001). *The Loyalty Effect: The Hidden Force Behind Growth, Profits, and Lasting Value.* Boston: Harvard Business School Press.

Rickardsson, H., Stark, F. & Stierna, H. (2005). *Invisible Branding, Creating brand value from invisibility.* Jonkoping: Jonkoping University.

Shiv, B. & Huber, J. (2000). The Impact of Anticipating Satisfaction on Consumer Choice. *Journal of Consumer Research,* 27 (2), 202-217.

Simon, C.J. & Sullivan, M.W. (1993). The Measurement and Determinants of Brand Equity: A Financial Approach. *Marketing Science,* 12 (1), 28-52.

Smith, D.C. & Park, C.W. (1992). The Effects of Brand Extensions on Market Share and Advertising Efficiency. *Journal of Marketing Research,* 29 (3), 296-313.

Storbacka, K., Strandvik, T. & Grönroos, Ch. (1994). Managing Customer Relationships for Profit: The Dynamics of Relationship Quality. *International Journal of Service Industry Management,* 5 (5), 21-38.

Virvilaite, R. & Jucaityte, I. (2008). Brand valuation: viewpoint of customer and company. *Engineering Economics,* 56 (1), 111-119.

Wang, Y. & Lo, H.-P. (2003). Customer-focused Performance and the Dynamic Model for Competence Building and Leveraging. *Journal of Management Development,* 22 (6), 483-526.

Washbum, J.H., Till, B.D. & Priluck, R. (2004). Brand Alliance and Customer-Based Brand-Equity Effects. *Psychology & Marketing,* 21 (7), 487-508.

Westbrook, R.A. & Oliver, R.L. (1991). The Dimensionality of Consumption Emotion Patterns and Consumer Satisfaction. *Journal of Consumer Research,* 18 (1), 84-91.

Zeithaml, V.A. (1988). Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing,* 52 (2), 2-22.