The Impact of Marketing on Competitiveness: The Manufacturing Industry in Guadalajara, Mexico

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EXECUTIVE SUMMARY

Marketing is a social and managerial process in which a group or individuals get what they need by generating offerings and exchanging products and services of similar value. Marketing involves strategies of purchasing techniques, market research and market positioning. Therefore, marketing is the approach in which market and commerce are managed in an organization. The perspective of this research is to get a better understanding of SMEs' marketing techniques used by manufacturers in Guadalajara and how the impact of competitiveness is more effective in the market.

Keywords: Marketing, Competitiveness, SMEs.

INTRODUCTION

Arriaga, Avalos and De la Torre (2012) state that the concept of putting together a marketing mix was developed by Neil Borden in 1964 and that it is based on Culliton's work in 1948, who developed a list of elements from which 4 of them are taken: product, price, place and promotion. This concept was attributed to McCarthy in 1960.

A unique combination of product, price, place and promotions in a determined manner allows industries to compete in a more effective way and this guarantees more profitability and sustainability, Barney (1991) comments that the elements of marketing mix provide a unique value to the customer or give an accurate reason for purchase by buyers. The simplicity and concept of the marketing mix has gotten the attention from SME executives who have started to use marketing mix as a fundamental strategy in their organizations.

Therefore, this study examines how the marketing function affects or influences the competitiveness of enterprises.

LITERATURE REVIEW

Marketing involves products and, according Lamb, Hair and McDaniel (2011), products consist of all that is favorable or adverse that a person receives in an exchange and can be tangible or intangible. On the other hand, Muniz (2012) states that products are a group of tangible characteristics and attributes with physical attributes, shape, size or color, or intangible with ethereal attributes, brand, services, corporate image. The marketing mix is directly related to the enterprise performance,

according to Vorhies and Bush (2011), where the efforts of entrepreneurial people pursue the use of marketing mix to obtain a sustainable competitive advantage.

Financial Product Performance ▼ H1 **H8** H2¿ H6 **Cost Reduction** Price Marketing Competitiveness H3/ Place H7 **Technology Use Promotion** H4

Figure 1. Theoretical model to analyze the effects of Social Responsibility on competitiveness

Source: own material

One element of a marketing mix, Price, has both values for the producer and the consumer, for the consumer it is an expense and for the producer it is an income and this makes Price the most complex item in marketing tasks, (González, Gaytán, Sánchez, & Pérez, 2011). Berger, Dragnaska and Simons (2007) claim that effectiveness is achieved by increasing the probability of buying and building equity through activities of the product, which relate to innovations, changes and improvements in form and quality.

According to Gonzalez et al. (2011), Place is a complex exchange and can be defined as the group of interdependent organizations involved in placing a product or service in disposition to users or consumers. Furthermore, Stern and El-Ansary (1992) and Gonzalez (2011) state that the exchange can be in three ways: restricted, generalized and complex. Peñaloza (2005) explains that the Place management element has acquired enormous importance providing substantial and measurable benefits to the buyer in the transaction value.

Finally, Promotion integrates the strategies to keep target clients from the goods or services offered, thus getting a competitive advantage. The objectives of Promotion are very simple; informing, persuading and reminding customers about a good or product, Sales promotion can be defined as: techniques and devices commonly used temporarily so that goods and services attract more distributors or customers by providing any additional benefit induction or expectations of a benefit, in kind (nature) and/or services, either immediately or at a later time, either freely or conditionally (Zebra & Batul, 2012).

In conclusion, after reviewing the definitions given by experts, we can say that marketing is the group of activities that create, communicate, offer and deliver value to clients and society in general and its result is beneficial for both clients and businesses. Marketing mix helps enterprises or organizations achieve their established objectives and satisfy the needs of their clients or markets by developing their own and customized marketing strategies.

COMPETITIVENESS

Competitiveness is not a well-defined concept because it has not set limits. The operative definition of competitiveness depends on the analysis point of reference (nation, sector or enterprise,) also the analyzed product (chain f production, stages of production, basic needs) and the objective of investigation (short-long term, market operation) (Pineiro, 1993).

Kay (1993) describes business competitiveness as a function of four different factors. The first is the capability for innovation. Second are the external and internal relationships. The third one is reputation. And the last one is strategy. In this context, competitiveness has widened to take into count the principal tangible and intangible resources that provide a competitive edge (Hamel & Prahalad, 1989). Furthermore, competitiveness has to have those factors to obtain more capabilities from their own companies (dynamics such as flexibility, adaptability quality and commercialization [Barney, 1991]) given that competitiveness is the capability of businesses to design, generate and commercialize products of superior quality in comparison to competitors always having the price as a main factor (D'Cruz & Rugman, 1992).

METHODOLOGY

The surveys were applied in 450 SMEs manufacturers in Guadalajara, Mexico, from March to July 2013. There were 450 surveys taken and the number of employees was from 11 to 250. Simple random sampling was used and the universe was 2847 SMEs.

There are eight hypotheses that contribute to this research:

H1: Better product development, better market effect.

H2: Better price, better market effect.

H3: Better place strategy, better the effect on the market.

H4: Better promotion strategy, the better impact on the market.

H5: Higher financial performance level, better business competitiveness level.

H6: Higher cost reduction level, better business competitiveness level.

H7: Higher technology use level, better business competitiveness level.

H8: Better marketing strategy, better business competitiveness level.

About development standards, marketing was measured taking into account the four basic elements that compose it, based on Vorhies and Bush (2011), Berger, Dragnaska and Simons (2007), González, Gaytán, Sánchez, and Pérez (2011) and Zebra and Batul (2012). Competitiveness was measured on three items and was adapted from Barney (1991), John Kay (1993), Pineiro (1993), D'Cruz and Rugman (1992) and Hamel and Prahalad (1989). All items used were based on a Likert scale of 5 positions with 1= absolutely disagree and 5= absolutely agree as limits

Confirmatory Factor Analysis (CFA) with maximum likelihood method, was used to measure the reliability and validation of the level of intellectual capital and business competitiveness through software EQS 6.2, Bentler, (2005), Brown (2006) and Byrne (2006).

ANALYSIS AND DISCUSSION

Chart 1 shows Cronbach's alpha and the CRI exceed the value 0.70 recommended by Nunally and Bernstein (1994), and the variance extracted index (VEI) was calculated for the variables of the model, resulting in a higher value of 0.50 (Fornell & Larcker, 1981). For evidence of convergent validity, the results with the CFA, indicated that all items related factors are significant (p <0.001) and the size of all standardized factor loadings are greater than 0.60 (Bagozzi & Yi, 1988).

Chart 1. Internal consistency and convergent validity of the theoretical model

Variable	Indicator	Load factor	Robust Value t	Cronbach Alpha	CRI	VEI
	MPP7	0.611 *	1,000 *			,
	MPP8	0.610 *	12.378	1		
Product	MPP9	0.642 *	13.235	0.752	0.776	0.505
	MPP10	0.681 *	11.901	1		
	MPP13	0.652 *	10.118	1		
Price	MPR1	0.682 *	1,000 *	0.706	0.706	0.535
Trice	MPR3	0.637 *	10.866	0.700	0.700	0.333
	MPL1	0.608 *	1,000 *		0.872	0.507
	MPL2	0.639 *	15.741]		
	MPL3	0.644 *	14.901]		
	MPL4	0.625 *	13.786]		
Dlaga	MPL5	0.637 *	14.306	0.060		
Place	MPL6	0.600 *	15.099	0.868		
	MPL7	0.641 *	13.242	1		
	MPL9	0.647 *	15.342	1		
	MPL10	0.684 *	15.36	1		
	MPL11	0.650 *	12.705	1		
	MPO1	0.691 *	1,000 *		0.890	0.502
	MPO2	0.688 *	19.866	1		
	MPO3	0.709 *	16.455	1		
D	MPO4	0.751 *	19.036	0.000		
Promotion	MPO5	0,738 *	19.421	0.889		
	MPO6	0.670 *	16.95	1		
	MPO7	0.740 *	19.524	1		
	MPO8	0.678 *	18.37	1		
	FP1	0.672 *	1,000 *			
	FP2	0.762 *	16.874	0.815	0.844	0.521
Performance	FP3	0.749 *	15.746			
	FP4	0.707 *	14.083			
	FP5	0.714 *	11.109			
	PC2	0.603 *	1,000 *	0.732	0.733	0.507
	PC3	0.625 *	10.128			
Costs	PC4	0.688 *	10.652			
	PC5	0.634 *	10.003			
	ST1	0.754 *	1,000 *	0.885	0.885	0.539
	ST2	0.764 *	21.569			
	TE3	0.760 *	22.081			
Technology	TE4	0.751 *	21.255			
	TE5	0.695 *	17.699	1		
	RE6	0.768 *	21.255	1	0.00	

 $S BX^{2} (df = 1321) = 1907.8820 (p < 0.0000); NFI = .838; NNFI = .938 CFI = .943; RMSEA = .031$

Chart 2 shows the measurement provided in two ways. The first presents the estimate of the correlation factors with a confidence interval of 90% (Anderson & Gerbing, 1988). Second, the extracted variance between the pair of constructs must be greater than the variance extracted index (VEI) (Fornell & Larcker, 1981).

Chart 2. Discriminant Validity of the Theoretical Model Measurement

Variables	Product	Price	Place	Promotion	Financial performance	Costs	Technology
Product	0.505	0.507	0.443	0.370	0.322	0.128	0.400
Price	0.379, 0.635	0.535	0.274	0.274	0.328	0.132	0.179
Place	0.323, 0.563	0.166, 0.382	0.507	0.605	0.356	0.142	0.568
Promotion	0.258, 0,482	0.160, 0.388	0.457, 0.753	0.502	0.400	0.160	0.564
Financial performance	0.224, 0.420	0.222, 0.434	0.250, 0.462	0.286, 0.514	0.521	0.226	0.756
Costs	0.150, 0.206	0.040, 0.224	0.056, 0.228	0.066, 0.254	0.126, 0.326	0.507	0.701
Technology	0.278, 0.522	0.059, 0.299	0.422, 0.714	0.416, 0.712	0.590, 0.922	0.539, 0.863	0.539

^{*}These values present the estimation between correlation factors with a confidence interval of 90%.

The hypotheses were tested in the theoretical model of competitiveness and business social responsibility using the Structural Equations Model (SEM) software EQS 6.1 (Bentler, 2005; Byrne, 2006; Brown, 2006).

Chart 3. Results from the Theoretical Model Marketing and Competitiveness

Hypothesis	Structural Relationship	Standardized Coefficient	Robust T Value
H1: Better product development, better market effect.	Product → marketing strategy	0.260***	9.398
H2: Better price, better market effect.	Price → marketing strategy	0.274***	10.866
H3: Better place strategy better the effect on the market.	Place→ marketing strategy	0.297***	11.514
H4: Better promotion strategy, better impact on the market.	Promotion → marketing strategy	0.334***	16.202
H5: Higher financial performance level, better business competitiveness.	Financial performance → Competitiveness	0.115***	14.453
H6: Higher cost reduction level, better business competitiveness.	Cost → Competitiveness	0.105***	10.261
H7: Higher technology use, better business competitiveness.	Technology → Competitiveness	0.153***	20.771
H8: Better marketing mix strategy, better business competitiveness level.	Marketing strategy → Competitiveness	0.417***	15.172
S BX2 (df = 1305) = 1884.773; p	0 < 0.000; $NFI = 0.840$; $NNFI = 0.936$	8; $CFI = 0.944$; RN	ASEA = 0.031

^{*** =} p < 0.001

^{* =} Parameters in the identification process

Chart 3 shows the results obtained from the Structural Equations Model. In regards to **H1**, the results obtained, $\beta = 0.260$, p < 0.001, indicates that the Product has significant effect on the marketing strategy. For hypothesis **H2**, the results obtained, $\beta = 0.274$, p < 0.001, suggest that Price also has significant effect on marketing strategy. In hypothesis **H3**, the results obtained, $\beta = 0.297$, p < 0.001, suggest that Place has significant effect on the market strategy in manufacturing firms. In hypothesis **H4**, the results obtained, $\beta = 0.334$, p < 0.001, suggest that Promotion has significant impact on the marketing strategy in SMEs.

Also, with respect to hypothesis **H5**, **H6** and **H7**, it is indicated that financial performance, cost reduction and technology use also have significant effect on business competitiveness. Finally, the results obtained on hypothesis **H8**, $\beta = 0.417$, p < 0.001, present that marketing strategy has very significant impact on SME competitiveness.

LIMITATIONS

A major limitation is that the questionnaire was applied to managers or the CEO and therefore the results might be different if considered at other levels in the organization. Therefore, it is recommended for future studies that the study include the opinions of customers and suppliers, in order to obtain results with a larger objective.

Finally, according to the results, for manufacturing SMEs, considering implementing appropriate marketing strategies to improve competitiveness, such as Place, Product, Price and Promotion in order to increase their market share.

CONCLUSIONS

This research shows that in the context of SME manufacturing in Guadalajara, there is a broad correlation between marketing variables from competitiveness levels, as the results show a consistency between the Product, Price, Place and Promotion with financial performance, costs and technology.

However it is important to mention that within these variables, there are elements that are not considered, such as the identity or brand of their products, development of new product lines or services and new product introduction, which directly affects competitiveness.

Regarding Price, SMEs believe that prices should be lower with respect to competition and therefore a discount policy is applied for early payment.

Finally, in terms of Place, there is ongoing communication with distributors, so this activity affects their performance.

REFERENCES

Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 13, 411-423.

Arriaga H. L., Avalos B. M., & De la Torre F. M. (2012). Marketing mix: La fortaleza de las grandes empresas. Contribuciones a la Econom'a. Recuperado de www.eumed.net/ce/2012.

Bagozzi, R.P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120

Bentler, P.M. (2005). EQS 6 structural equations program manual. CA: Multivariate Software.

Berger, J., Draganska, M., & Simonson, I. (2007). The influence of product variety on brand perception and choice. *Marketing Science*, 26, 460-472.

Bernal, C. A. (2006). Metodolog'a de la investigación, administración, econom'a, humanidades y ciencias sociales. Columbia: Pearson.

Bernal, C. A. (2010). Metodolog'a de la investigación, administración, econom'a, humanidades y ciencias sociales. Columbia: Pearson.

Bertram, D. (2007). Likert scales... are the meaning of life? CPSC Report. Tennessee.

Brown, T. (2006). Confirmatory factor analysis for applied research. New York: The Guilford Press.

Carroll, A. B. A. (1979). Three-dimensional conceptual model of corporate performance. *The Academy of Management Review*, 4(4), 497.

Chou, C.P., Bentler, P.M., & Satorra, A. (1991). Scaled test statistics and robust standard errors for no normal data in covariance structure analysis. *British Journal of Mathematical and Statistical Psychology*, 44, 347-357.

Culliton, J. W. (1948). The management of marketing costs. Boston: Division of Research, Graduate School of Business Administration, Harvard University.

Davis, K. (1973). The case for and against business assumption of social responsibilities. *Academy of Management Journal*, 16(2), 70-76.

D'Cruz, J., & Rugman, A. (1992). New concepts for Canadian competitiveness. Kodak: Canada.

Euroscrip. (2012). Industria manufacturera. *Euroscript International*. Recuperado de http://www.euroscript.com/luxembourg/es/35.html.

Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 1(18), 39-50.

Gonzalez-Uribe, E.G., Gaytan-Cortes, J., Sanchez-Gutierrez, J., & Franco-Perez, E. (2011). *Marketing mix*. En M. C. Martínez Serna (Ed.), *Estrategias empresariales para la competitividad en las pymes de servicios de Aguascalientes, Jalisco, Nayarit y Querétaro* (pp. 43-69). Aguascalientes; Ediciones de la Noche.

Hamel, G., & Prahalad, C.K. (1989). Strategic intent. Harvard Business Review, 3, 63-76.

Hatcher, L., & Stepanski, E.J. (1994). A step by step approach to using the SAS System for univariate and multi variate statistics. Cary: SAS Institute Inc.

Hu, L.T., Bentler, P.M., & Kano, Y. (1992). Can test statistics in covariance structure analysis be trusted? *Psychological Bulletin*, 112, 351-362.

INEGI. (2013). Indicadores del sector manufacturero. La Econom'a. Recuperado de http://www.laeconomia.com.mx/sector-manufacturero/.

Joreskog, K.G., & Sorbom, D. (1986). LISREL VI: Análisis de las relaciones estructurales lineales de máxima verosimilitud, variables instrumentales y métodos de m'nimos cuadrados. Universidad del Departamento de Estadística Uppsula.

Kay, J. (1993). Foundations of corporate success. Oxford: Oxford University Press.

Keller, K.L., & Kotler, P. (2006). Dirección de marketing. New York: Prentice Hall.

Lamb, C., Hair, J., & McDaniel, C. (2011). Marketing. México: Cengage Learning.

Lévy, M. J. P., & Varela, M. J. (2003). Análisis multivariable para las ciencias sociales. New York: Prentice Hall.

Muñiz, G. R. (2012). Concepto producto, *Marketing en el siglo XXI*, 3. Recuperado de http://www.marketing-xxi.com/concepto-de-producto-34.htm.

NetMBA. (2010). The marketing mix (The 4 Ps of marketing). Business Knowledge Center. Retrieved from http://www.netmba.com/marketing/mix/.

Nunnally, J.C., & Bernstein, I.H. (1994). Psychometric theory. New York: McGraw-Hill.

Papke-Shields, K.E., Malhotra, M.J., & Grover, V. (2002). Strategic manufacturing planning systems and their linkage to planning system success. *Decision Science*, 13(1), 1-30.

Peñaloza, M. (2005). El mix de marketing: Una herramienta para servir al cliente. Actualidad Contable Faces, 8(10), 71-81.

Salvador, & Maldonado. (15 de diciembre 2011). Industria alimenticia, líder en empleo manufacturero. *Informador*. Recuperado de http://www.informador.com.mx/jalisco/2011/344757/6/industria-alimenticia-lider-en-empleo-manufacturero.htm.

Satorra, A., & Bentler, P.M. (1988). Scaling corrections for chi square statistics in covariance structure analysis. American Statistics Association 1988 Proceedings of the Business and Economic Sections, 208-313.

SEIJAL. (25 de septiembre 2011). Indicadores económicos de la industria manufacturera. SEIJAL. Recuperado de www.seijal.gob.mx/modulos/bannerAleatorio/2010.02_Indicadores_Economicos_baja.pdf.

Stern, L. W., & El-Ansary, A. I. (1992). Marketing channels. Englewood Cliffs: Prentice Hall.

Tamayo, T. M. (2002). El proceso de la investigación cient'fica. Limusa: Noriega Ediciones.

Zebra, S.N., & Batul, S. (2012). Short term and long term impact of sales promotion on organizations' profitability: A comparative study between convenience and shopping goods. *International Journal of Business & Management*, 7(4), 247-255