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**Market Orientation and Learning Orientation directed to Innovation and Organizational Performance**

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## **Abstract**

References in the Marketing area indicate that market orientation is necessary but not enough to sustain competitive advantage. This article investigates the relationship between market orientation, learning orientation, innovation and performance. A theoretical model with the referred constructs was developed and tested through the application of SEM. Surveys developed at the Brazilian Electro-Electronic industry and at undergraduate courses in Business Administration demonstrated a significant influence of market orientation on product innovation, as well as learning orientation's indirect impact on innovation, through its positive and strong influence on market orientation. Results also show a direct effect of innovation on organizational performance.

## **Introduction**

Market orientation has drawn substantial interest from scholars as well as Marketing professionals in recent years (Homburg, Workman & Krohmer, 1999; Perin & Sampaio, 2001). Several Marketing authors, however, have agreed upon the need for market orientation, although they point out it is not enough to sustain a long-term competitive advantage (Slater & Narver, 1995; Dickson, 1996; Baker & Sinkula, 1999a; Farrell, 2000). According to these authors, the ability to engage in organizational learning processes – called learning orientation – should follow market orientation in order for organizations to reach long-term competitive advantage, by encouraging innovation, particularly within dynamic and competitive environments (Hurley & Hult, 1998).

Despite the number of specific publications on market orientation and learning orientation (considered individually), Baker & Sinkula's (1999a) assertion about the

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abundance of theoretical propositions and the lack of empirical corroboration of the relationship between learning orientation, market orientation, innovation and organizational performance is to be underscored. Therefore, this article presents the details of a study aimed at empirically investigating that relationship. The study has been limited to two economic sectors of Brazil – the Electro-Electronic industry and the Business Administration Schools, seeking to compare the results of sectors with remarkably distinct emphasis and contexts.

### **Theoretical References**

Marketing literature has approached learning orientation as closely related to the market orientation construct (Day, 1994a; Sinkula, 1994; Slater & Narver, 1995; Dickson, 1996; Sinkula, Baker & Noordewier, 1997; Hurley & Hult, 1998; Baker & Sinkula, 1999a, 1999b). Baker & Sinkula (1999a) postulate the existence of a synergic influence of learning orientation and market orientation on business performance. From the market orientation viewpoint, learning orientation is valuable to the organization, since it encourages the focus on understanding and meeting customers' needs, not only the expressed ones but also the latent ones, through new products and services as well as new forms of acting in the business (Day, 1994b; Sinkula, 1994; Slater & Narver, 1995; Dickson, 1996). That condition leads the organization to better results, such as the success of new products, customer retention, higher growth and profitability (Slater & Narver, 1995).

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Although theoretically stressing a relationship with the constructs investigated – market orientation, learning orientation, innovation and organizational performance – several authors from the marketing area sustain that few empirical studies seek to corroborate that relationship (Sinkula, Baker & Noordwier, 1997; Claycomb & Germain, 1997; Baker & Sinkula, 1999a). By and large, those few studies have found that learning orientation affects innovation by increasing market-oriented behaviours, thus facilitating generative learning that leads to innovation on products, procedures and systems (Slater & Narver, 1995; Dickson, 1996; Baker & Sinkula, 1999a; Slater & Narver, 2000). Among the main theoretical lines within this research issue, the work of Baker & Sinkula (1999a; 1999b) should be underlined.

Baker & Sinkula (1999a) have extended their initial theoretical scheme (Baker, Sinkula & Noordewier, 1997) and put forward a new model, which explicitly related learning orientation, market orientation and organizational performance constructs. One of the performance dimensions specifically approached innovation – the success of new products. The research found that learning orientation indirectly affects organizational performance, as it increments the quality of the organization's market orientation stance; and it directly influences organizational performance, since it facilitates double-loop learning (Argyris, 1977), thus promoting breakthrough innovation.

Following the research, Baker & Sinkula (1999b) – openly influenced by works of Han, Kim & Srivastava (1998), and Hurley & Hult (1998) – introduced the innovation construct into the model tested by their previous study (Baker & Sinkula, 1999a). In the

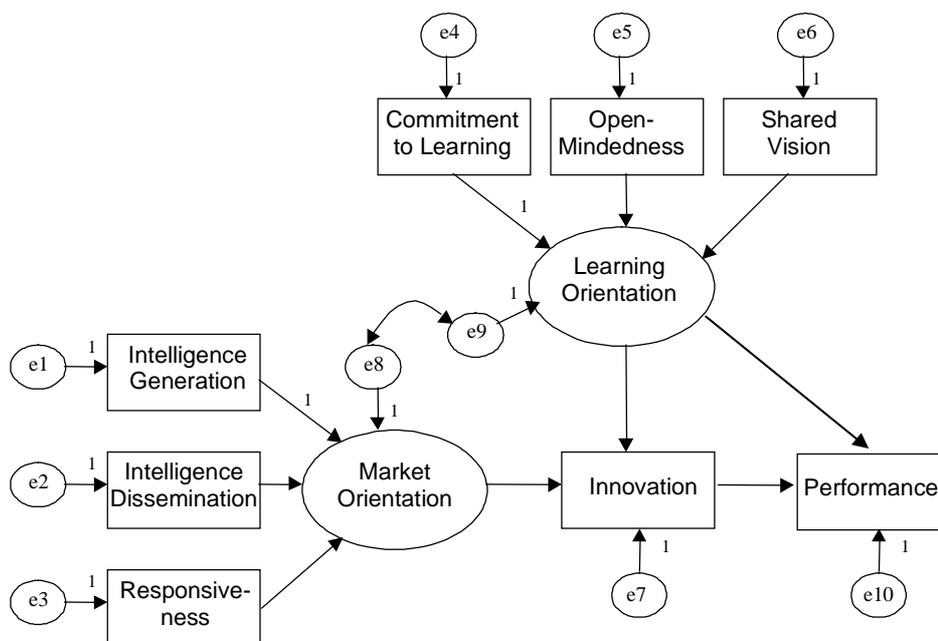
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discussion about the results of their study, Baker and Sinkula (1999b, p.14) sustain that “both learning orientation and market orientation are key to successful innovation-driven performance”, that is, market orientation and learning orientation directly influence business performance through their direct effect upon innovation.

Baker & Sinkula's (1999b) model was taken as the basis for the model tested in the present study (Figure 1). That choice occurred in face of the relative stability that the theoretical model proposed by Baker and Sinkula (1999b) has received in the Marketing literature, besides the methodological strength seen in its development process (Sinkula, 1994; Sinkula, Baker & Noordewier, 1997; Baker & Sinkula, 1999a; Baker & Sinkula, 1999b).

## **Method**

The method applied to this research, given its descriptive nature, was the cross-sectional survey following recommendations by Churchill (1999) and Malhotra (2001). The technique used to evaluate the proposed model was confirmatory factorial analysis (CFA), by applying structural equations modeling (SEM) (Hoyle, 1995; Hair et al., 1998). The procedure was based on data collected in two surveys, respectively on Brazil's Business Administration undergraduate schools and on the Electro-Electronic industry, using a data collection instrument adapted from Baker & Sinkula (1999b).



**Figure 1 – Measurement Model**

For the Electro-Electronic industry, the market orientation construct was operationalized by the 20-indicator MARKOR scale developed by Kohli, Jaworski & Kumar (1993). An adaptation was specifically necessary for the teaching sector, because of its peculiarities. Therefore, the adjustments made by Caruana, Ramaseshan & Ewing (1996) on the 25-item MARKOR scale, in a study carried out at universities in Australia and New Zealand were considered. Learning orientation, in turn, was measured by the scale proposed by Sinkula, Baker & Noordewier (1997), revised by Baker & Sinkula (1999a) and applied in Baker & Sinkula (1999b), which involved three dimensions: commitment to learning; shared vision; and open-mindedness. In order to

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measure the degree of innovation, the construct suggested by Baker & Sinkula (1999b) was adopted. According to the authors, the innovation construct is composed of four variables related to: market pioneering; the degree of new product differentiation; the rate of new product introduction; and the degree of success of new products. Finally, organizational performance was measured following the pattern employed in studies by Claycomb & Germain (1997), Hurley & Hult (1998), Baker & Sinkula (1999a and 1999b) and Slater & Narver (2000). In the Electro-Electronic industry three indicators were used – sales growth rate, profitability and general performance. For the teaching sector, the national ranking method were used.

The research instrument was submitted to content validation and pre-tested. Complementarily, as indicated by Hair et al. (1998) and Garver & Mentzer (1999), the evaluation of both instruments was carried out by reliability calculation and variance extracted, from the sum of the loadings of the standard variations and measurements errors of the variables. All constructs under analysis presented internal consistence.

The survey applied to Business Administration schools involved those affiliated to the Brazilian National Association of Undergraduate Business Administration Schools (ANGRAD). Thus, the population was constituted by 346 Business Administration schools spread all over the country. The survey applied to the Electro-Electronic industry, in turn, considered the population of companies in the sector which are affiliated to the Brazilian Association of Electrical and Electronic Industries (ABINEE), totalling 541 organizations.

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Data collection from undergraduate Business Administration schools was carried out by e-mail, while in the Electro-Electronic industry, the questionnaire was sent via regular mail. Both were sent to every member of their respective populations. The final number of valid questionnaires for Business Administration schools and the Electro-Electronic industry – excluded the cases of outliers, wrong addresses, mistakes in filling up the forms or incomplete questionnaires – was respectively **170** and **123** cases. Note that both surveys were carried out in 2001.

Because of the chosen data collection method – questionnaire via e-mail or regular mail – non-respondent bias analysis was carried out on both samples, by two-wave test (1<sup>st</sup> wave after sending the questionnaire and 2<sup>nd</sup> wave after the follow-up) and comparison between characteristics of respondent and non-respondent companies (data regarding number of employees, geographic location and classification according to activity code). Results obtained by both procedures indicated inexistence of bias on the data collected.

## **Result Analysis**

As postulated by Hoyle (1995) & Hair et al. (1998), the application of CFA was preceded by an evaluation of the correlation between the constructs of the model, in order to identify possible relationships not included in the model as well as the fragility of those theoretically hypothesized. The analysis of the correlation (Table 1) between the

several indicators showed that there is a significant correlation between the constructs linked by the relationships in the model. Values were quite similar in both samples, denoting a similar association behaviour between the constructs for both economic sectors. Note, however, the low correlation coefficient recorded between the constructs of learning orientation and innovation (lower than 0.3) in both cases. There was also a strong association between the constructs of market orientation and learning orientation (around 0.7) in both samples. The correlation between market orientation and innovation was shown to be, in both sectors, only average (around 0.45). Finally, the correlation between performance and the other constructs was very low in the teaching sector (around 0.2) and average (around 0.45) in the Electro-Electronic industry.

**Table 1 - Correlation Between the Constructs**

	Electro			Teaching		
	MO	LO	PER	MO	LO	PER
LO	0.714**		0.446**	0.643**		0.155*
IN	0.444**	0.296**	0.489**	0.479**	0.232**	0.204*

Note: MO – Market Orientation, LO – Learning Orientation,  
IN – Innovation, PER – Performance.

\*  $p < 0.05$  \*\*  $p < 0.01$

These results could be seen, at first, as favouring a conclusion for the validity of the model, as in the study carried out by Faleiro (2001). On the other hand, it may also be considered that the results point to a possible fragility of the model under analysis, signalling a stronger relationship between the innovation and market orientation

constructs than to learning orientation. Apparently, market orientation and learning orientation are strongly correlated. However, the market orientation exerts more influence on innovation. Such a perception has evidenced the need to apply a more accurate statistical technique, as is the case of CFA.

CFA followed the steps recommended by Hair et. al. (1998) and Bagozzi & Edwards (1998), considering partial aggregation procedures of the measurement model. Figure 1 presents the aggregation model initially used. The simplified measurement model remained logically equivalent to the theoretical model originally proposed.

The examination of the properties related to the validity of the constructs, namely, unidimensionality, reliability, convergent validity and discriminant validity, followed recommendations by Garver & Mentzer (1999). All constructs demonstrated construct validity in both samples.

The results presented in both samples were quite similar, representing good fit rates, according to standards suggested by Hair et al. (1998), both in the Electro-Electronic Industry sample ( $\chi^2 = 27.521$ ;  $DF = 17$ ;  $GFI = 0.963$ ;  $AGFI = 0.922$ ;  $TLI = 0.977$ ;  $CFI = 0.986$ ;  $RMSEA = 0.061$ ), and in the teaching sector sample ( $\chi^2 = 19.270$ ;  $GL = 17$ ;  $GFI = 0.961$ ;  $AGFI = 0.918$ ;  $TLI = 0.991$ ;  $CFI = 0.995$ ;  $RMSEA = 0.033$ ), thus demonstrating the good fit of the theoretical model in both samples.

After confirming the model fit, it was possible to proceed reading the estimated parameters for the direct-effect relationships hypothesized in the theoretical model. Table 2 relates the parameters under discussion. Note that the relationship between

market orientation and innovation was positive and significant ( $p < 0.01$ ) in both samples, recording high factorial loadings. The relationship between learning orientation and innovation was not significant ( $p > 0.01$ ) for the Electro-Electronic sample, besides recording negative factorial loadings, contrary to what was hypothesized by the proposed model (Figure 1). Otherwise, the relationship between learning orientation and performance was not strong in the Electro-Electronic industry ( $p = 0.26$ ), and not significant in the teaching sector. Finally, the positive influence of innovation on performance was verified in both sectors, but weaker and less significant in the teaching sector ( $p = 0.36$ ).

**Table 2 – Estimated Parameters of Model**

Relationship	Electro loading ( <i>t-value</i> )	Teaching loading ( <i>t-value</i> )
market orientation >> innovation	0.739 (4.258)**	0.784 (4.431)**
learning orientation >> innovation	-0.299 (-1.752)	-0.343 (-2.068)*
learning orientation >> performance	0.323 (2.114)*	0.100 (1.027)
innovation >> performance	0.376 (5.660)**	0.167 (1.981)*

Note: Covariance between market orientation and learning orientation was significant ( $p < 0.01$ ).

\*  $p < 0.05$     \*\*  $p < 0.01$

In other words, the analysis of the factorial loadings points to market orientation's direct, strong and positive influence on innovation. On the other hand, the same analysis shows a non-significant influence of learning orientation on innovation in the Electro-Electronic industry as well as learning orientation's negative influence on innovation in

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the teaching sector. In the latter case, the level of significance identified for the relationship was close to the maximum acceptable level ( $p=0.48$ ).

Such findings differ from the results found by Baker & Sinkula (1999a). The authors arrived at positive and significant relationships both of learning orientation to innovation and of market orientation to innovation, besides the positive and significant relationships both of learning orientation to performance and of innovation to performance. Results were also in contrast to the assessment made by Claycomb & Germain (1997), to whom learning orientation exerts a positive influence on innovation.

A possible explanation for those results was pointed out by Perin (2002), to whom learning orientation has a direct-effect relationship on market orientation – and not one of association, as defined in the proposed model (Figure 1). That explanation finds support in Day (1994a), Dickson (1996) and Hunt & Morgan's (1996) theoretical propositions. Even Baker & Sinkula (1999a) openly admit the existence of this theoretical school alternative to their proposition. Therefore, a structural change has been carried out in the proposed model, namely, the replacing of the association relationship by a direct-effect relationship of learning orientation to market orientation. That change allowed the evaluation – through the parameters estimated by SEM – of the indirect effects of learning orientation on innovation through market orientation.

The new parameter estimation then presented a positive and significant factorial loading ( $p<0.01$ ) for the direct influence of learning orientation on market orientation, both in the Electro-Electronic industry (loading=0.832;  $t$ -value=9.012) and in the teaching

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sector (loading=0.759; t-value=6.589). The parameters related to the other relationships remain unchanged. In turn, the indirect-effect relationship recorded between learning orientation and product innovation through market orientation was significant ( $p < 0.01$ ), and in the Electro-Electronic industry the estimated parameter was 0.609, while in the teaching sector it was 0.597.

In sum, these results demonstrate a large positive and direct influence of market orientation on product innovation. The role played by learning orientation is that of reinforcing market orientation and its relationship to product innovation.

## **Conclusions**

The several theoretical schools that deal with market orientation and its relationship to business performance are unanimous in sustaining that this subject, although quite consolidated, still presents several facets to be discovered. Among those, there is a frequent research question in the areas' studies, which regards the insufficiency of the market orientation stance in providing organizations with a long-term competitive advantage. A series of works discuss this specific issue, expressing the need for organizations to emphasize continuous-learning processes – in parallel to their market orientation stance – in order to sustain a distinctive and lasting position within the competitive environment. Therefore, this work related the propositions and conclusions

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of the main works regarding market orientation, learning orientation and product innovation.

The theoretical model initially proposed (Figure 1) presented a direct, strong and positive influence of market orientation on innovation, and a non-significant and negative effect of learning orientation on innovation. Those results are partially different from those found in studies by Baker & Sinkula (1999a; 1999b) and Claycomb & Germain (1997). Because of these findings, the structure of the initial model was changed and the results obtained pointed to a positive and direct effect of market orientation on innovation and only to an indirect effect of learning orientation on innovation. That is, in the sectors investigated, the increase in the degree of market orientation is very likely to explain the increase in the degree of innovation, while the increase in the degree of learning orientation is not likely to explain the increase in the degree of innovation, without the corresponding rise in the degree of market orientation.

Such findings underscore the constant indication by Marketing literature that a market orientation stance associated to a learning orientation stance is very likely to have a positive influence on product innovation in organizations, thus contributing to obtaining long-term competitive advantage (Slater & Narver, 1995; Dickson, 1996; Hurley & Hult, 1998; Baker & Sinkula, 1999b).

In order to do that, Day's (1994a) recommendations regarding continuous learning about the market strongly apply. The author suggests capturing information through a peripheral vision, aiming at the identification of opportunities that go beyond

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the mental model often used to analyse the market. Therefore, managers can go beyond the information coming from more frequent or usual sources, thus overcoming the information that tends to sustain the current mental model. Results also suggest that organizations should increment generation and dissemination of market information throughout the organization in order to promote more effective responses to opportunities and threats identified in the market. That stance will positively influence product innovation.

Finally, this study has shown that learning orientation might significantly reinforce market orientation, indirectly and positively affecting innovation, and so increasing organizational performance. Therefore, it seems reasonable to argue that an organization should encourage a learning-committed and open-minded stance in its staff, valuing the initiative of breaking up current paradigms within the organization. It would also be reasonable to share the future vision idealized for the organization with employees at all levels.

### ***Limitations of the Study and Future Research Suggestions***

In spite of the scientific rigor applied to this research, some methodological and conceptual limitations should be noted for the proper understanding of results hereby expressed and consequently considering its implications. Some solutions for those

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limitations and possible extensions of the work in the form of new research should also be postulated.

The confirmatory results presented and discussed here concerning the relations between the constructs of the proposed model should be considered only as evidence of causal relations between the aforementioned constructs. The effective proof of causality could be carried out by new studies with the same research question but with alternative methods, e.g. experimental designs.

As for the type of research employed in this study, it is pointed out that cross-sectional survey itself provides a series of limitations to the study, the most important being the impossibility of controlling the variable of time and its influence on constructs and their interrelations. In this case, respondents are obliged to consider past factual reality, which can promote response bias generated by several factors, such as loss of memory (Churchill, 1999). The simultaneous – and usually by the same tool – measurement of all constructs should also be underlined. That procedure can lead to a wrong interpretation of a correlation as being causality. Thus, longitudinal survey-based research designs might be more adequate to verifying causality in the relations between constructs (Sinkula, 1994).

Finally, regarding data collection, note the adoption of only one respondent per organization included in the sample, which might have promoted a wrong consideration of an individual opinion as the expression of the reality of a company. Despite all the methodological care taken by sending the questionnaire to high management,

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representative position-holding people within the researched organizations, as well as the empirical indication of the non-difference between single and multiple respondents (Joworski & Kohli, 1993; Homburg, Workman & Krohmer, 1999; Pelham, 2000), it would be interesting to compare results obtained in this study with results from studies involving multiple respondents in each organizations.

## References

- Argyris, C. (1977). Double Loop Learning in Organization. *Harvard Business Review*, 55(5), 115-125.
- Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods*, 1(1), 45-87.
- Baker, J. M., & Sinkula, W. E. (1999a). The synergetic effect of Market Orientation and learning orientation on Organizational Performance. *Journal of the Academy of Marketing Science*, 27(4), 411-27.
- Baker, J. M., & Sinkula, W. E. (1999b). learning orientation, Market Orientation, and innovation: Integrating and Extending Models of Organizational performance. *Journal of Market-Focused Management*, 4(4), 295-308.
- Caruana, A., Ramaseshan, B., & Ewing, M. (1996). Market orientation and performance: a study of Australasian universities. *Curtin Business School, Working Paper Series*.

---

Churchill Jr., G. A. (1999). *Marketing Research: Methodological Foundations*. (7<sup>th</sup> ed.). Orlando: The Dryden Press, 1999.

Claycomb, C., & Germain, R. (1997). Organizational Learning and Performance: an Empirical Test. In *Proceedings of American Marketing Association Winter Educators' Conference* (pp. 94-100). St. Petersburg, FL: AMA.

Day, G. S. (1994a). Continuous Learning About Markets. *California Management Review*, 36(4), 9-31.

Day, G. S. (1994b). The Capabilities of Market-Driven Organizations. *Journal of Marketing*, 58(4), 37-52.

Dickson, P. R. (1996). The static and dynamic mechanics of competition: a comment on Hunt and Morgan's Comparative Advantage Theory. *Journal of Marketing*, 60(3), 102-106.

Faleiro, S. N. (2001). *A Relação entre Orientação para o Mercado, Orientação para a Aprendizagem e Inovação: o Caso dos Cursos de Graduação em Administração Filiados à ANGRAD*. Porto Alegre: Ed. UFRGS. (Thesis for Master's Degree). (in Portuguese).

Farrell, M. A. (2000). Developing a Market-Oriented Learning Organisation. *Australian Journal of Management*, 25(2), 201-222.

---

Garver, M. S., & Mentzer, J. T. (1999). Logistics research methods: employing structural equation modeling to test for construct validity. *Journal of Business Logistics*, 20(1), 33-57.

Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*. (5<sup>th</sup> ed.). New Jersey: Prentice Hall.

Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market orientation and organizational performance: is innovation a missing link?. *Journal of Marketing*, 62(4), 30-45.

Homburg, C., Workman, J. P., & Krohmer, H. (1999). Marketing's influence within the firm. *Journal of Marketing*, 63(2), 1-17.

Hoyle, R. H. (1995). *Structural Equation Modeling: Concepts, Issues, and Applications*. London: SAGE.

Hunt, S. D., & Morgan, R. M. (1996). The Resource-Advantage Theory of Competition: dynamics, path dependencies, and evolutionary dimensions. *Journal of Marketing*, 60(2), 107-114.

Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of Marketing*, 62(3), 42-54.

Kohli, A. K., Jaworski, B. J., & Kumar, A. (1993). Markor: A measure of Market Orientation. *Journal of Marketing Research*, 30(4), 467-477.

---

Malhotra, N. K. (2001). *Pesquisa de Marketing: Uma Orientação Aplicada*. Porto Alegre: Bookman. (in Portuguese).

Perin, M. G. (2002). *A Relação entre Orientação para Mercado, Aprendizagem Organizacional e Performance*. Porto Alegre: ed. UFRGS. (Thesis for Doctor's degree). (in Portuguese).

Perin, M. G., & Sampaio, C. H. (2001). A Relação entre as Dimensões de Orientação para Mercado e a Performance. In *Proceedings of the 25<sup>th</sup> ENANPAD* (CD-Rom). Campinas, SP: ANPAD. (in Portuguese)

Sinkula, J. M. (1994). Market Information Processing and Organizational Learning. *Journal of Marketing*, 58(1), 35-45.

Sinkula, J. M, Baker, W. E., & Noordewier, T. (1997). A Framework for Market-Based Organizational Learning: Linking Values, Knowledge and Behavior. *Journal of the Academy of Marketing Science*, 25(4), 305-318.

Slater, S. F., & Narver, J. C. (1995). Market Orientation and the Learning Organization. *Journal of Marketing*, 59(3), 63-74.

Slater, S. F.; Narver, J. C. (2000). Intelligence Generation and Superior Customer Value. *Journal of the Academy of Marketing Science*, 28(1), 120-127.