# Level of Knowledge Management Orientation, Marketing Capability and Firm Performance among Trained and Untrained Agri-Input Retailers

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## Abstract

*The increasing importance of knowledge in the modern and globalized organization has initiated a need to focus on managing knowledge as an organizational and competitive asset. The traditional agri-input retailers located in villages had played a significant role in the agricultural production process. Several studies have indicated that they had been the primary source of information to the farmers on cultivation aspects. Their presence in the village at all times, familiarity of being known as a village person, provision of credit sales* etc., *had made them indispensable to farmers. Considering the above aspects, a study was undertaken to analyse the level of Knowledge Management Orientation (KMO), Marketing Capability (MC) and Firm Performance (FMP) among the trained and untrained agri-input retailers in the western zone of Tamil Nadu. The total sample size was 240 agri-input retailers (120 trained and 120 untrained retailers) drawn from the population of study. A well structured interview schedule was prepared and mean score analysis was used to analyse the level of KMO, MC and FMP. The Willcoxon Matched pairs Test was used to determine the significance of the difference in mean values of KMO, MC and FMP between trained and untrained agri-input retailers. It was found that there was a significant difference in KMO, MC and FMP between the trained and untrained agri-input retailers. The authors conclude that steps must be taken by training institutions to impart training focused on providing information on both technological and marketing capability related aspects.*

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## Introduction

The role of the private corporate sector in technology transfer pertaining to their products has been gaining importance. Many of the organised retailers emerged due to the huge potential in rural marketing which created more competition for the small agri-input retailers. Companies like ITC, Rallis India, Tata Chemicals, DCM Shriram Consolidated Ltd. (DSCL), Godrej Agrovet and Mahindra & Mahindra spawned innovative business models to tap this big business opportunity (Gupta and Jena, 2005). DSCL started utility shopping centers called "Hariyali Kisaan Bazaars", Godrej Agrovet as "Godrej Aadhaar" and Tata Chemicals as "Tata Kisan Sansar" which sought to cater to all the needs of the farmers under one roof. These stores were one-stop shops meant to meet the occupational needs of farmers by providing the entire range of quality agri inputs and services. They clearly displayed the prices to ensure complete transparency in business dealing. Hence, in such a competitive retail environment, agri-input retailers must have up-to-date knowledge on latest production technologies in order to provide a better service and to attain a sustained competitive advantage in the market.

On the other hand, the traditional agri-input retailers located in villages also played a significant role in the agricultural production process. Several studies have indicated that they had been the primary source of information to the farmers on cultivation aspects. Their presence in the village at all times, familiarity of being known as a village person, provision of credit sales etc., had made them indispensable to farmers. However, unfortunately, they were not agricultural graduates or with a diploma in agriculture. Hence, they were not very effective in transfer of technology propagated by the public sector institutions. Some of agri-input retailers attended training programmes under Agri-Clinic and Agri-Business Centre (ACABC) scheme, Diploma in Agricultural Extension Services for Input Dealers (DAESI) and Agri-Clinic cum Mini Soil Testing Lab (AST) to enhance their knowledge. Training would be a critical enabler for the firm to create value and sustain competitive advantage in the increasingly complex and rapidly changing environment. Since the agri-input retailers were an important source of knowledge/information for the farmers in most of the situations, improving the knowledge of agri-input retailers would ultimately benefit the farmers. Considering the above aspects, it was deemed essential to study the relationship between Knowledge Management Orientation and Marketing Capabilities and

Firm Performance of agri-input retailers. Accordingly, the study was undertaken to examine the level of Knowledge Management Orientation, Marketing Capabilities and Firm Performance between trained and untrained agri-input retailers in the western zone of Tamil Nadu.

## Review of literature

### Training and its importance

Goldstein (1991) said that effective training programs were systematic and continuous. It was viewed as a long term process, not just an infrequent and/or haphazard event. Assessment of employee and organizational needs as well as business strategies was conducted and then used in selecting training methods and participants. Ichniowski *et al.,* (1997) stated that the success of training depended on the correct implementation of all steps of the process of training like previous analysis of training needs, development and implementation of an adequate training plan and evaluation. He concluded that the training, together with other activities positively affected results and was associated with a productivity increase. Holton (2000) defined training design as the degree to which the training was designed and delivered in such a way that provided trainees the ability to transfer learning back to the job. The author argued that transfer design also included the degree to which training instructions match job requirements. Kozlowski *et al.,* (2000) reported that the knowledge and skills of workers acquired through training had become important in the face of the increasingly rapid changes in technology, products and systems. Most organizations invested in training because they believed that higher performance would result. Salas and Cannon-Bowers (2000) stated that there was an increasing awareness in organizations that investment in training could improve organizational performance in terms of increased sales and productivity, enhanced quality and market share, reduced turnover, absence and conflict. Soliman and Spooner (2000) viewed employees' collective knowledge as competitive advantage and suggested that the training function was well positioned to ensure the success of KM programs which were directed at capturing, using and re-using employees' knowledge.

### Knowledge Management Orientation

Quintas *et al.,* (1997) defined knowledge management as the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit existing and acquired knowledge assets and

to develop new opportunities. Duffy (2000) considered KM as a strategic activity that added value to the organization and ensured that knowledge activities contributed to strategic advantage and profitability. Walters *et al.*, (2002) stated that knowledge management within strategic operations enabled an organisation to make more effective decisions about how to structure value chain operations to maximize customer satisfaction. Sharkie (2003) stated that knowledge could be reused and new knowledge could be integrated with current knowledge to develop even more valuable knowledge and strategically valuable new insights, creating a unique valuable synergy to improve the firm's performance. According to James (2005) KM could improve efficiency and effectiveness, along with responsiveness and flexibility to market changes. It could also be used to improve product development, innovation and quality, and develop a better understanding of customer and stakeholder relationships.

**Marketing Capability**

Tuominen *et al.,* (1997) defined marketing capabilities as the integrative processes designed to apply the collective knowledge, skills, and resources of the firm to market-related needs of the business, enabling the business to add value to its goods and services and meet competitive demands. Woodruff (1997) concluded that superior capabilities in marketing gave the firm the ability to generate and act on information about competitor actions and reactions. This process of generating knowledge and applying it in ways that support delivering superior customer value helped the firm develop the basis for a competitive advantage. Hult and Ketchen (2001) concluded that the firms with superior market orientation achieved superior business performance because they had a greater understanding of customers' expressed wants and latent needs, competitor capabilities and strategies, channel requirements and developments, and the broader market environment than their rivals. Zahay and Handfield (2004) stated that marketing capability created value for the firm within three important categories of organizational processes - namely, the new product development process, the customer management process and the supply chain management process. Morgan *et al.,* (2009) argued that firms should increase their marketing capabilities which included market sensing capability, customer relationship management capability and brand management capability in key functional areas that were more competitive in business.

## Firm performance

Venkatraman and Ramanujam (1986) suggested two-dimension for assessment of performance as financial and operational indicators. While financial measures were related to accounting measures and economic performance (e.g. profit, sales), operational measures were related to operational success factors that might lead to financial performance like customer satisfaction, quality, market share or new product development. Fathy *et al.,* (2000) said that firm performance measured as metrics employed to quantify the efficiency and/or effectiveness of actions, and had always remained a problematic issue in business research. Vorhies and Morgan (2003) concluded that firm performance could be measured subjectively and objectively. The subjective measures were based on the opinion or estimates provided by the respondents who were asked to assess their firm's performance. The objective measures were based on independent observable facts, either by asking respondents to report absolute values or by accessing secondary sources.

## Methodology

The population for this research comprised of trained and untrained agri-input retailers in the Western zone of Tamil Nadu comprising Coimbatore and Erode districts. For this study, 120 trained and 120 untrained retailers were selected by using convenience sampling method. Hence the total sample size was 240 agri-input retailers drawn from the population of study.

A well structured interview schedule was prepared by adopting the scales from various research studies. Knowledge Management Orientation was measured using the instrument developed by Wang *et al.*, (2008). This instrument measured the four dimensions of Knowledge Management Orientation such as Organizational Memory, Knowledge Sharing, Knowledge Absorption and Knowledge Receptivity. The KMO instrument had totally 16 items. According to Vorhies and Morgan (2003), Marketing Capabilities are defined as the processes by which firms planned appropriate combinations of available knowledge and other resources to deploy into their market place(s) and executed these planned resource deployments, transforming them into realized value offerings for target market(s). Marketing Capabilities was measured using the instrument developed by Morgan *et al.*, (2009). This instrument measured the three dimensions of Marketing Capabilities namely Market Sensing Capability, Customer Relationship Management Capability and Brand Management Capability. The Marketing

Capabilities instrument had 15 items. The Firm Performance was measured using the instrument developed by Lee and Lee (2007) which contained 7 items. This instrument measured the two dimensions namely Customer Performance and Financial Performance. This instrument measured a relative performance of the indicators, so that it could be applied universally to all organizations (Deshpande *et al,* 1993; Drew, 1997).

The level of Knowledge Management Orientation, Marketing Capabilities and Firm Performance was assessed through the mean score analysis. The list of all the means for each construct was calculated based on the unweighted observed variables. The observed indicators of Knowledge Management Orientation, Marketing Capabilities and Firm Performance were measured using a 7-point likert scale, ranging from 1 for "strongly disagree" to 7 for "strongly agree", the mean value above 4 indicated that the respondents agreed with the relevant statements.

The Wilcoxon Matched-pairs Test (or Signed Rank Test) was used in order to determine the significance of the difference in mean values of KMO, MC and FMP between trained and untrained agri-input retailers.

The hypothesis is

**H1:** There is a significant difference in Knowledge Management Orientation, Marketing Capabilities, and Firm Performance between trained and untrained agri-input retailers.

Further, the mean score values derived for each construct were again classified into low, medium and high level using the range formula mean plus or minus standard deviation.

## Results and Discussion

The level of Knowledge Management Orientation, Marketing Capabilities and firm performance between trained and untrained agri-input retailers was explored and the results are discussed.

### 1. Knowledge Management Orientation

### 1.1 Classification of Agri-input Retailers based on the levels of KMO

The level of Knowledge Management Orientation was measured using a seven point scale. The minimum and maximum values of KMO of trained agri-input retailers were 4.99 and 6.12 respectively. The mean score for KMO of trained agri-

input retailers and standard deviation were 5.57 and 0.34 respectively. The KMO of agri-input retailers was divided into three levels namely low, medium and high using the range formula mean plus or minus standard deviation. The ranges and distribution of KMO were analysed and the results are given in Table 1.

**Table 1. Comparison of KMO among Agri-input Retailers**

| KMO level | Range | Trained agri-input retailers | | Untrained agri-input retailers | |
|---|---|---|---|---|---|
| | | No. of Respondents | Per cent | No. of Respondents | Per cent |
| Low | ≤ 5.23 | 25 | 20.83 | 36 | 30.00 |
| Medium | 5.24 – 5.91 | 62 | 51.67 | 84 | 70.00 |
| High | ≥5.92 | 33 | 27.50 | 0 | 0.00 |
| | **Total** | **120** | **100.00** | **120** | **100.00** |
| Calculated $\chi^2$ value= 38.3; Table $\chi^2$ value= 5.99; d(f)= 2 | | | | | |

It could be inferred that most of the trained (51.67 per cent) and untrained retailers (70 per cent) were in the medium level of KMO. About twenty seven per cent of trained retailers were in the high level, in contrast to the untrained retailers where no one was with high level of KMO. The chi-square analysis revealed that the trained retailers' systematic knowledge management implementation in a firm was positively and significantly higher than that of the untrained retailers.

### 1.2 Comparison of measures of KMO among Agri-input Retailers

The KMO was measured using four components namely Organizational Memory, Knowledge Sharing, Knowledge Absorption and Knowledge Receptivity. The mean score of four measures of KMO between the trained and untrained agri-input retailers and its significance were also measured. The results are furnished in Table 2.

Knowledge Receptivity had the highest mean score (5.77) for trained retailers which indicated that trained agri-input retailers encouraged flow of information from others and analysed them on a fair, effective, and regular basis, and subsequently incorporated them in their business practices. The Knowledge Sharing of trained retailers had the mean value of 5.71 which indicated that trained agri-input retailers were actively sharing their wisdom, skills, and technology with stakeholders (farmers, other retailers, employees and company representatives) and learning from each other. The untrained retailers also had highest mean score for Knowledge Receptivity (5.69) followed by Knowledge Sharing (5.44).

**Table 2. Comparison of KMO measures among trained and untrained Agri-input Retailers**

| Measures of KMO | Trained agri-input retailers | | Untrained agri-input retailers | | Mean Difference | Z Score |
|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Mean | Std. Deviation | | |
| Organizational Memory (OM) | 5.29 | 0.574 | 4.75 | 0.032 | 0.54** | -7.214 (0.000) |
| Knowledge Sharing (KS) | 5.76 | 0.490 | 5.44 | 0.448 | 0.32** | -4.946 (0.000) |
| Knowledge Absorption (KA) | 5.47 | 0.497 | 5.25 | 0.435 | 0.22** | -3.384 (0.001) |
| Knowledge Receptivity (KR) | 5.77 | 0.312 | 5.69 | 0.422 | 0.08$^{NS}$ | -1.322 (0.186) |

Meanwhile, the component which had the lowest mean value was Organisational Memory with the value of 5.29 and 4.75 for trained and untrained agri-input retailers, respectively, which were deemed as moderate. It is suggested that agri-input retailers should focus on improvement in capturing organizational lessons, preserving these lessons for later use, and facilitate their retrieval when needed.

The difference between the mean values was assessed through Wilcoxon matched-pairs test and results implied that the scores of these measures of KMO viz., Organisational Memory (0.54), Knowledge Sharing (0.32), Knowledge Absorption (0.22) were significantly higher among trained retailers than that of untrained retailers at 0.01 level. Hence, it could be concluded that training had contributed to significant improvement in the Organisational Memory, Knowledge Sharing, and Knowledge Absorption among the trained agri-input retailers.

## 2. Marketing Capabilities (MC)

In this section, the level of Marketing Capabilities and its measures between trained and untrained agri-input retailers were explored and the results are discussed.

### 2.1 Classification of Agri-input Retailers based on the levels of MC

The mean score and standard deviation of agri-input retailers for Marketing Capabilities were 5.78 and 0.811 respectively. The minimum and maximum values of MC of trained agri-input retailers were 4.00 and 6.67 respectively. The agri-input retailers were classified into low, medium and high level of MC based on mean plus or minus standard deviation of MC score of agri-input retailers. The results of the analysis are given in Table 3.

**Table 3. Comparison of Marketing Capabilities among Agri-input Retailers**

| MC level | Range | Trained agri-input retailers | | Untrained agri-input retailers | |
|---|---|---|---|---|---|
| | | No. of Respondents | Per cent | No. of Respondents | Per cent |
| Low | ≤ 4.97 | 21 | 17.50 | 36 | 30.00 |
| Medium | 4.98 – 6.58 | 58 | 48.33 | 84 | 70.00 |
| High | ≥ 6.59 | 41 | 34.17 | 0 | 0.00 |
| | **Total** | **120** | **100.00** | **120** | **100.00** |
| Calculated $\chi^2$ value= 56.6; Table $\chi^2$ value= 5.99; d(f)= 2 | | | | | |

About 48.33 and 70.00 per cent of trained and untrained retailers respectively were in the medium level of MC. About 34.17 per cent of trained retailers were in the high level and in contrast, none of the untrained retailers were in the high level of MC. The chi-square analysis indicated that there was significant difference between MC scores of trained and untrained agri-input retailers.

## 2.2 Comparison of measures of MC among the agri-input retailers

The Marketing Capabilities were measured using three measures such as Market Sensing Capability (MSC), Customer Relationship Management Capability (CRM) and Brand Management Capability (BMC). The mean score of measures of MC between the trained and untrained agri-input retailers were also analysed and the results are furnished in Table 4.

**Table 4. Comparison of MC measures among trained and untrained Agri-input Retailers**

| Measures of MC | Trained agri-input retailers | | Untrained agri-input retailers | | Mean Difference | Z Score |
|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Mean | Std. Deviation | | |
| MSC | 5.86 | 0.263 | 5.32 | 0.367 | 0.54** | -8.177 (0.000) |
| CRM | 5.73 | 0.429 | 5.02 | 0.129 | 0.71** | -8.916 (0.000) |
| BMC | 5.76 | 0.361 | 5.50 | 0.502 | 0.26** | -4.400 (0.000) |

The mean score values of trained agri-input retailers for each component of Marketing Capabilities viz., Market Sensing Capability, Brand Management Capability and Customer Relationship Management Capability were 5.86, 5.76 and 5.73 respectively.

The mean score value of untrained agri-input retailers for Brand Management Capability was highest (5.50) followed by Market Sensing Capability (5.32) and Customer Relationship Management Capability (5.02).

Even though both trained and untrained retailers had a mean score of above 5.00 for marketing capabilities, there was a difference in the mean values. The magnitude of difference between mean values of trained and untrained agri-input retailers on Marketing Capabilities was tested using Wilcoxon matched-pairs test. The results revealed that the mean score values of Market Sensing Capability, Brand Management Capability and Customer Relationship Management Capability between trained and untrained agri-input retailers were significantly different at 0.01 levels.

Hence, it could be concluded that level of Marketing Capabilities was higher among trained agri-input retailers than the untrained agri-input retailers. So, the training had enhanced the competitive advantage of trained agri-input retailers owned firms by significantly improving the Marketing Capabilities over that of untrained agri-input retailers.

## 3. Firm Performance (FMP)

In this section, the level of Firm Performance and its measures between trained and untrained agri-input retailers are explored and the results are discussed.

### 3.1 Classification of agri-input retailers based on the levels of FMP

The level of Firm Performance of agri-input retailers was analyzed. The mean score and standard deviation of agri-input retailers for FMP was 5.20 and 0.313 respectively. The minimum and maximum mean scores of FMP were 4.5 and 5.5 respectively. The agri-input retailers were classified into three groups using the rule mean plus or minus standard deviation. The results are furnished in Table 5.

**Table 5. Comparison of Firm Performance among Agri-input Retailers**

| FMP level | Range | Trained agri-input retailers | | Untrained agri-input retailers | |
|---|---|---|---|---|---|
| | | No. of Respondents | Per cent | No. of Respondents | Per cent |
| Low | ≤ 4.89 | 26 | 22.00 | 113 | 94.17 |
| Medium | 4.90 – 5.51 | 94 | 78.00 | 7 | 5.83 |
| High | ≥ 5.52 | 0 | 0.00 | 0 | 0.00 |
| | **Total** | **120** | **100.00** | **120** | **100.00** |
| Calculated $\chi^2$ value= 129; Table $\chi^2$ value= 3.84; d(f)= 1 | | | | | |

It is clearly evident from Table 5 that, major share (78 per cent) of trained retailers was in the middle level and only 22 per cent of them were in the low level. In contrast, among the untrained retailers, 94.17 per cent were in the low level of FMP. The chi-square analysis indicated that there was a significant difference in the Firm Performance between trained and untrained agri-input retailers.

### 3.2 Comparison of measures of FMP among the agri-input retailers

The Firm Performance was measured using two measures namely Customer Performance and Financial Performance. The mean score of trained and untrained agri-input retailers for the measures of FMP are presented in Table 6.

**Table 6. Comparison of FMP measures among trained and untrained Agri-input Retailers**

| Measures of FMP | Trained agri-input retailers | | Untrained agri-input retailers | | Mean Difference | Z Score |
|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Mean | Std. Deviation | | |
| Customer Performance | 5.60 | 0.480 | 5.04 | 0.189 | 0.56** | -7.870 (0.000) |
| Financial Performance | 4.71 | 0.449 | 4.07 | 0.231 | 0.64** | -9.283( 0.000) |

**P≤0.01 ; *P≤0.05

It could be found that in case of trained agri-input retailers, mean score for Customer Performance was higher (5.60) than the mean value for Financial Performance (4.71). In contrast to trained agri-input retailers, untrained retailers' mean scores for Customer Performance and Financial Performance were 5.04 and 4.07, respectively.

The magnitude of difference between mean values of trained and untrained agri-input retailers on Firm Performance was tested using Wilcoxon matched-pairs test. It could be concluded from the result that the difference in the mean score value of Customer Performance and Financial Performance for trained and untrained agri-input retailers were significantly different at 0.01 per cent level.

Hence, it could be understood from the results that even though both trained and untrained agri-input retailers followed certain kind of knowledge management practices, the training had its own impact on KMO, MC and FMP.

## Conclusion

1. The level of knowledge receptivity and knowledge sharing were high among the trained agri-input retailers. Efforts must be taken to train the other agri-input retailers on the importance of knowledge sharing and receptivity to improve knowledge management orientation. Besides the retailers should understand and take holistic efforts to implement Knowledge Management in their firms in order to update their knowledge which in turn will help them to improve their performance.
2. Organisational Memory (OM) is very important for successful performance of the retail firms. It was found in the study the OM was at low level for the trained agri-input retailers. Efforts must be taken to improve the Organisational Memory. The training institutions, which offer training to agri-input dealers, should take steps to improve their knowledge on how to store the information in order to retrieve as needed. Effective KM implementation requires a firm to systematically develop organizational memory and promote a culture that favours knowledge sharing and receptivity as well as enhances knowledge absorptive capacity.
3. The level of marketing capabilities and firm performance among the trained retailers was comparatively higher than untrained retailers. Hence steps must be taken by the training institutions to impart training which should focus on providing information on both technological and marketing capability related aspects.

## References

Duffy, J. (2000). Knowledge management: To be or not to be?. *Information Management Journal*, 34 (1), 64-7.

Fathy, T., Hooley, G., Cox, T., Beracs, J., Fonfara, K., and Snoj, B. (2000). The development and impact of marketing capabilities in central Europe. *Journal of international business studies,* 31(1), 63-81.

Goldstein, I. L. (1991). Training in work organizations. In M. D. Dunnette and L. M. Hough (Eds.). *Hand book of industrial and organizational psychologists Press* (507-619). Palo Alto, CA: Consulting Psychologists Press.

Gupta, A., and Jena, S. (2005). *Agri-Retailing: Revolutionizing Indian Agriculture*, Available at http://www.manage.gov.in/pgpabm/spice/ spiceaugust 2005.pdf.

Holton, E.F. (2000). Large-scale Performance-Driven Training Needs Assessment. *Public Personnel Management,* 29(2), 249–67.

Hult, G.T., and Ketchen Jr., D.J. (2001). Does market orientation matter?: A test of the relationship between positional advantage and performance. *Strategic management journal,* 22, 899-906.

Ichniowski, C., Shaw, K. and Prennushi, G. (1997) 'The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines', *The American Economic Review,* 87(3): 291–313.

James, P. (2005). *Knowledge Asset Management: The Strategic Management and Knowledge Management Nexus.* DBA thesis, Southern Cross University.

Kozlowski, S. W. J., and Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In K. J. Klein and S. W. J. Kozlowski (Eds.), *Multi-level theory, research, and methods in organizations: Foundations, extensions, and new directions* (3-90). San Francisco, CA: Jossey-Bass Publishers.

Morgan, N. A., Rebecca J. S., and Vorhies, W.D. (2009). Linking marketing capabilities with profit growth. *International Journal of Research in Marketing,* 26, 284–293.

Quintas, P., Lefrere, P., and Jones, G. (1997). Knowledge management: A strategic agenda. *Long range Planning,* 30(3), 385-391.

Salas, E., and Cannon-Bowers, J. A. (2000). The anatomy of team training. In S. Tobias and D. Fletcher (Eds.), *Training and retraining: A hand book for business, industry, government and the military* (312-335). Farmington Hills, MI: Macmillan.

Sharkie, R. (2003). Knowledge creation and its place in the development of sustainable competitive advantage. *Journal of Knowledge Management,* 7(1), 20-31.

Soliman, F., and Spooner, K. (2000). Strategies for implementing knowledge management: Role of human resources management. *Journal of Knowledge Management,* 4 (4), 337-345.

Tuominen, M., Moller, K., and Rajala, A. (1997). *Marketing capability: a nexus of learning-based resources and a prerequisite for market orientation,* Proceedings of the Annual Conference of the European Marketing Academy. 1220-40.

Venkatraman, N., and Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review,* 1(4), 801-808.

Vorhies, D. W., and Morgan, N.A. (2003). A configuration theory assessment of marketing organisation fit with business strategy and its relationship with marketing performance. *Journal of Marketing,* 67(1), 100-115.

Walters, D., Halliday, M., and Glaser, S. (2002). Creating value in the "new economy". *Management Decision,* 40 (7/8), 775-81.

Wang, C. L., Ahmed, P. K., and Rafiq, M. (2008). Knowledge management orientation: construct development and empirical validation European. *Journal of Information Systems,* 17, 219–235.

Woodruff, R. B. (1997). Customer value, the next source for competitive advantage. *Journal of the Academy of Marketing Science, 25, 139-53.*

Zahay, D. L., and Handfield, R. B. (2004). The role of learning and technical capabilities in predicting adoption of B2B technologies. *Industrial Marketing Management,* 33, 627–641.