Use of fuzzy AHP for Prioritization effective factors in the organization performance: marketing capabilities and Operations capabilities (Case study some business organization of Isfahan city)

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Abstract: Staying ahead of the competition in competitive business world, organizations must improve the quality of their products and services continually. Marketing capabilities and operations capabilities take organizational efforts on to achieve this goal. Our purpose of this paper is to tender Prioritization marketing capabilities and operations capabilities that are effective in the organization performance of companies. In this study, we used AHP-Analytic. Our statistical population consists of 491 major managers in some Isfahan's business organization which 250 have been chosen by using stratified randomized sampling. We earned our information by using of researcher-made questionnaires with 7 items and 250 questionnaires that had been distributed to target population. The response rate is quite suitable for this type of study in order to 124 out of 250 completed questionnaires that we have received. Finding demonstrates, the marketing assets and cost of capital alternatives are the preferred key figure which all-lucrative organizations utilize those for better performance.

Keywords: Fuzzy sets, marketing capabilities, Operations capabilities, Prioritization, AHP-Analytic, Marketing

1. Introduction

Increasing globalization and international competition, the importance of marketing capabilities and operations capabilities that can help to increase competitiveness of organizations has become a crucial factor in the success of business organizations. The resource- based view of the firm argues that the fundamental reasons why some firms perform better than others are resources and capabilities that enable the deployment of these resources (Teece, Pisano, and Shuen 1997).

Capabilities dwell in organizational processes and routines that are difficult to replicate, by means of that enabling firms to enjoy sustainable advantage over their rivals. As firms spread out into international markets they continually struggle to leverage firm resources and capabilities. While some organizations are successful in leveraging firm resources across markets, most organizations have striven to achieve success in differing institutional environments. Given these challenges, it is not surprising that a substantial amount of research has focused on this issue. However, while firm resources and capabilities have been a central focus of the literature (e.g., Ainuddin, Beasmish, Hulland, &

Rouse, 2007), none has focused on the ways in which the Prioritization marketing capabilities effective in the organization performance.

The general strategic management and marketing literatures suggest that organization capabilities in a number of functional areas can lead to positive performance (Hunt and Morgan, 1996). The concept of capability development and its impact on performance has been an important focus within the marketing field in recent years (Vorhees et al., 1999).

The following sections show the purpose of this research. At first, we describe the literature review. Then provide a description of the constructs that included in the proposed framework. Next, we describe proposed method which used to test framework and analysis results. Finally, the study was concluded by putting forward some conclusions and suggestions for future endeavors in this area.

2. Literature review

Early studies on marketing capabilities are superabundant (e.g., Ainuddin, Beasmish, Hulland, & Rouse, 2007), but literature on the subject is still in its infancy. Andreu Blesa and Maria Ripolle´s (2007) have focused their mind on the ways in which

marketing capabilities influence economic performance, depending on the country considered and influences on international performance in propose model of marketing Capability, international commitment and entry mode in figure 1. This scale identifies four clear factors for the assessment of marketing capabilities broadly in a line with the typology presented at (1994); on the other hand it follows with a separate factor concerned with networking capability. To put it another way, marketing capabilities are grouped as network capabilities, outside-in capabilities, inside-out capabilities and spanning capabilities.
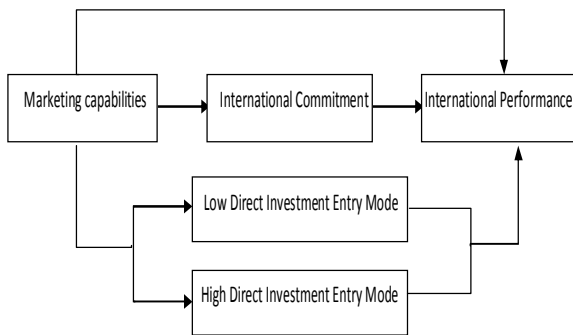

Figure 1. Andreu Blesa and Maria Ripolle´s (2007) model

Morgan, N. A. et al (2009) , have focused on the ways in which six factors associated with market-sensing capabilities, CRM capability, brand management capabilities, revenue growth rate and margin growth rate.

Nath, P. et al (2010), their research objective was, understanding the nature of relationship between marketing capability, operations capability, and diversification strategy (product/service and international) on organization's financial performance (figure 2).
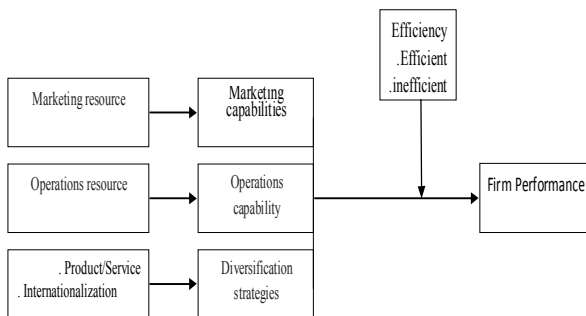

Figure2. Prithwiraj Nath et al (2010) model

David A. Griffith, Goksel Yalcinkaya, Roger J. Calantone (2010), the purpose of their study was, examining the cross-institutional applicability of R-A theory. They work to examine intangible resources within R-A theory, their model have been showed in fig3.
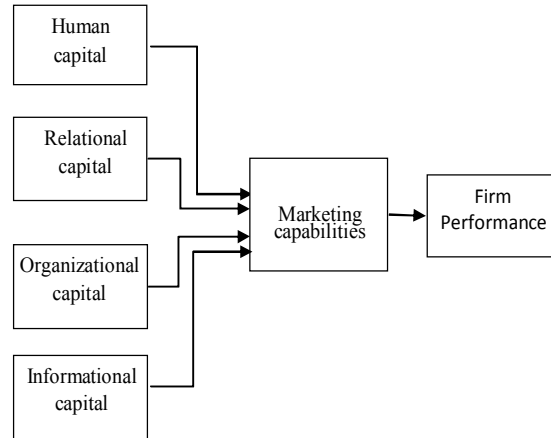

Fig3. David A. Griffith et al (2010) model

In the overhead section, we present the adoption of the models that were used as support for the framework pro-posed in this study. The research model used in this paper (Figure 4) builds on the Stock of marketing expenditure, Human capital, Entrepreneurship, Intangible resources, Cost of capital, Cost of labor, Technology, their subsequent impact on marketing capability, Operations capability, and Organization performance.
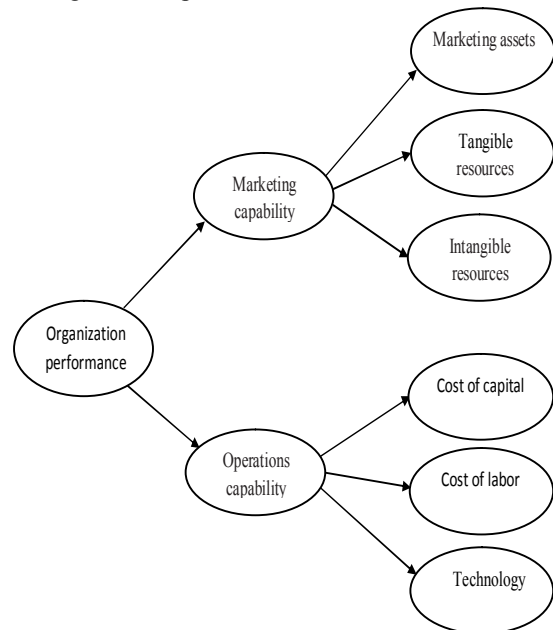

Fig4. Research model

3. Marketing capability, Intangible resources, tangible resources, marketing assets

Marketing capability is defined as the integrative process, in which an organization utilizes its tangible and intangible resources to understand complex consumer specific needs, achieve product differentiation relative to competition, and achieve superior brand equity (2007; Song, Droge et al., 2005). Hunt and Morgan (1995) categorize and specifically identify resources as tangible (i.e., financial, physical and legal) or intangible (i.e., human, organization-al, informational and relational). An organization develops its marketing capabilities when it can combine individual-al skills and knowledge of its employees along with the available resources (Vorhies & Morgan, 2005). Such capabilities, once built are very difficult to imitate for competing firms (Day, 1994).

Marketing capability of an organization particularly depends on its ability to understand customer needs and create long term relationships. This is possible if the organization is able to deploy its marketing resources optimally to generate superior customer value using its unique, inimitable marketing capability. Marketing assets like stock of marketing expenditures which are the expenses incurred by an organization to improve its sales effort, relationship expenditures to build and maintain trade relationships are extremely crucial.

Thus, marketing capability is considered to be an important source to increase competitive advantage of organizations. Song et al. (2007) suggest marketing capability helps a firm to create and retain strong bond with customers and channel members. Marketing capability create a strong brand image that allows firms tom produce superior performance (Ortega & Villaverde, 2008). Marketing literature suggests that firms use capabilities to transform re-sources into outputs based on their marketing mix strategies and such marketing capabilities is linked to their business performance (Vorhies & Morgan, 2003, 2005).

4. Operations capability, Cost of capital, Cost of labor, Technology

Operations capability is the process, technology, reliability and quality of the overall operations of the organization. Day (1994) suggests that "every business develops its own configuration of capabilities" according to the environment, and "it is not possible to enumerate all possible capabilities". Operations capability is defined as the integration of a complex set of tasks performed by a firm to enhance its output through the most efficient use of its production capabilities, technology, and flow of materials (Dutta et al., 1999; Hayes, Wheelwright, & Clark, 1988).

Manufacturing strategy literature highlights the role of operations capability on firm performance (Gonzalez-Benito & Gonzalez-Benito, 2005; Hayes & Pisano, 1996; Roth & Miller, 1990). It argues that an organization can achieve competitive advantage by handling an efficient material, low cost of capital and labor, careful utilization of assets; and better use of technology. Organizations use capital like warehouses, office and quality manpower like managers, dispatchers, and drivers to provide service and product to its customers. This cost of capital is used by the Organizations to improve on their business infrastructure and upgrading their process technology to deliver better service and product to their customers. Labor cost is includes the cost of recruiting and retaining high quality employees. We use remuneration (salaries and wages) of employees as a proxy for cost of labor (Min & Joo, 2006). High quality of manpower with tremendous functional and domain knowledge is used as a source of competitive edge by Organizations. Extant literature suggests that the impact of operations capability on an organization's business performance varies according to an organization's own characteristics (Ortega & Villaverde, 2008; Song, Benedetto et al., 2007; Song, Droge et al., 2005).

5. Fuzzy theory and definitions

Fuzzy set theory first was employed by Lotfi Zadeh in 1965 to solve problems. Fuzzy set theory is a valuable tool to strengthen the integrity and logical decision-making. In this paper have been used the linguistic variables to assess the priority and weight of these factors. These linguistic fuzzy numbers expression is trapezoidal or triangular fuzzy numbers. Then a multi-criteria decision making model based on the hierarchical theory of fuzzy sets is used for Prioritization marketing capabilities and operations capabilities that are effective in the organization performance of companies. Fuzzy numbers is one of the tools of fuzzy theory to represent uncertainty that can be specified with the membership functions $\mu(x)$, the triangular fuzzy numbers is specific type of trapezoidal fuzzy number in fuzzy applications, is very famous. Triangular fuzzy number A, the triangular number with membership function A (x) μ' on R is defined as a bottom relationship:

$$\mu A(X) = \begin{cases} \dfrac{(X-L)}{(M-L)} & L \leq X \leq \\ 1 & X=M \\ \dfrac{(X-L)}{(M-u)} & M \leq X \leq U \end{cases}$$

In the above equation [L, U] the fulcrum interval and [M, 1] D are the vertices.

5.1. Fuzzy AHP process

In this paper represented the concepts and definitions of fuzzy AHP based on the EA methods were presented by a scholar of Chinese name is Chang. Two triangular fuzzy numbers (M_2= (l_2, m2, u2), M_1 = (l_1, m1, u1)) consider, are plotted in Figure 5, the arithmetic operators are defined as follows:
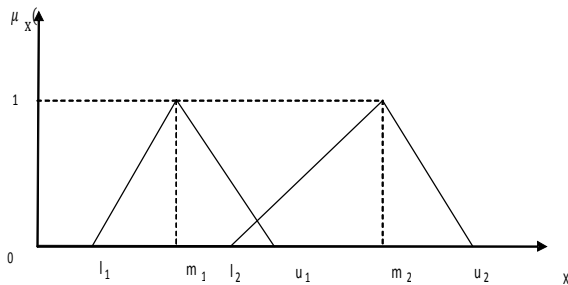

Figure5. Fuzzy numbers M_1, M_2

M1 + M2 = (l1+ l2 , m1+ m2 , u1+ u2)
M1 × M2 = (l1×l2 , m1×m2 , u1×u2)

It should be noted that the multiplication of two triangular fuzzy numbers or the inverse of a triangular fuzzy number, the other is not a triangular fuzzy number. This relationship are expressed only an approximation of the actual product of two triangular fuzzy numbers and reverse triangular fuzzy numbers.

In the EA method, for each row of a matrix of paired comparisons, the amount of Sk, which is a triangular number, calculation as follows:

$$S_k = \sum_{j=1}^{m} M_{kl} \times \left[\sum_{i=1}^{m} \sum_{j=1}^{m} M_{ij} \right]^{-1}$$

K represents the number of rows and i and j respectively represent criteria and sub-criteria. In the EA method, then Sk is calculated, have achieved their large degree.

In general, if M1 M2 be two triangular fuzzy numbers, a large degree of M1 and M2, which show V ($M_1 \geq M_2$), is defined as follows:

$$\begin{cases} V(M1 \geq M2) = 1 & \text{if} \quad m_1 \geq m_2 \\ V(M1 \geq M2) = hgt(M_1 \cap M_2) & \text{Otherwise} \end{cases}$$

Also, we have:

$$hgt(M_1 \cap M_2) = \frac{u_1 - l_2}{(u_1 - l_2) + (m_2 - m_1)}$$

A large amount of a triangular fuzzy number, further triangular fuzzy numbers as K is obtained from the following relationship:

$$V(M_1 \geq M_2, \ldots, M_k) = V(M_1 \geq M_2), \ldots, V(M_1 \geq M_k)$$
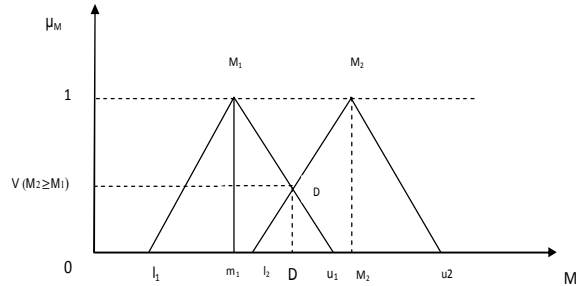
Assume that: D'(Si) =Min V ($S_i \geq S_k$)

Fig6. The intersection between M1 and M2

The EA method, for computation criteria weight in paired comparisons matrix, we perform the following:

W'(x_i)=Min{V($S_i \geq S_k$)},
     k=1,2,…,n,   k $\neq i$

Therefore, the weight vector of Criteria will be as follows:

W'=[W'(c_1),W'(c_2),…,W'(c_n)]^T

The normalized weight vectors are obtained as follows:

W = (D (S1), D (S2), . . . ,D (S n))^T

The consistency index (CI) and consistency ratio (CR) are calculated as follows:

$$CI = \frac{(\lambda_{max} - n)}{(n-1)} \quad and \quad CR = CI / RI$$

(13)

Where λ_{max} is the largest Eigen value of the comparison matrix, is the number of items being compared in the matrix, and RI is a random index, if the CR ≥0.10, the decision maker has to make the pair wise judgments again (Saaty, 1990).

The questionnaire was designed according to the concept of fuzzy hierarchical approach and

then questionnaire have been completed by managers and experts. Objective of questionnaires is criteria and sub- criteria Paired comparison. Fuzzy numbers are spotted to paired comparisons of the criteria is shown in Table 1.

Table 1: Triangular fuzzy conversion scale

Linguistic scale for importance	Triangular fuzzy scale	Triangular fuzzy reciprocal scale
Equally important	(1/2, 1, 3/2)	(2/3, 1, 2)
Weakly more important	(1, 3/2, 2)	(1/2, 2/3, 1)
Strongly more important	(3/2, 2, 5/2)	(2/5, 1/2, 2/3)
Very strongly more important	(2, 5/2, 3)	(1/3, 2/5, 1/2)
Absolutely more important	(5/2, 3, 7/2)	(2/7, 1/3, 2/5)

6. Methodology

To create pair wise comparison matrices, a group of managers has been interviewed. Equally important, the fuzzy evaluation matrix relevant to the goal has been obtained through the consensus of them. They are located to a spreadsheet as shown in Table 2. Figure 7 shows the Fuzzy hierarchy. Furthermore, the consistency of the pair wise comparison matrices were examined and then it was determined that all the matrices were consistent.
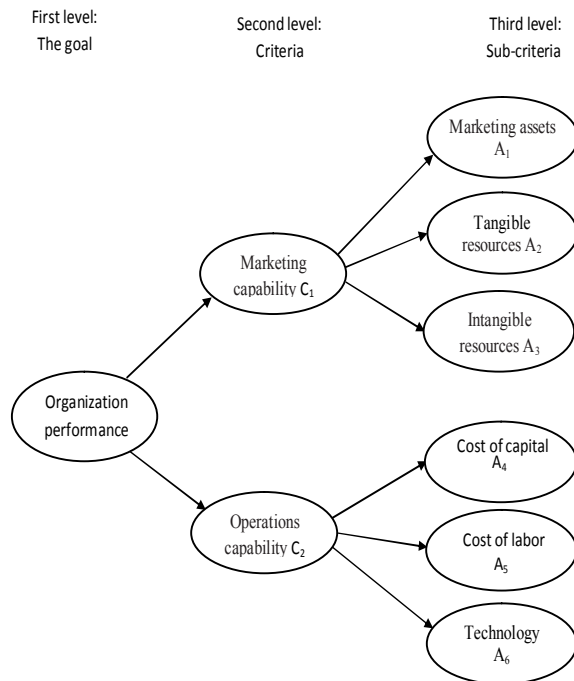

Fig 7. The Fuzzy hierarchy

Table 2.The fuzzy evaluation matrix with respect to the criteria

scale	C_1	C_2
C_1	(1,1,1)	(1/2, 2/3, 1)
C_2	(1, 3/2, 2)	(1,1,1)

By applying formula (2) given in Step 1:
$S1 = (1.5, 1.66, 2) * (0.2, 0.24, 0.286) = (0.3, 0.4, 0.571)$
$S2 = (2, 2.5, 3) * (0.2, 0.24, 0.286) = (0.4, 0.6, 0.857)$

Finally, by using formula (10), we obtain:
$V (S_1 \geq S_2) = 0.462$
$V (S_2 \geq S_1) = 1$

Therefore, the weight vector is calculated as:
$W' = (0.462, 1)$

The normalized weight vectors $(W_i = \dfrac{W_1}{\sum W_i})$ are obtained as follows:

$\quad C_1 \quad C_2$
$W = (0.684, 0.316)$

After creating relative significance of goals for creates relative significance of sub-criteria, assess the linkage of each goal with its sub-criteria. The fuzzy evaluation matrix relevant to the sub-criteria has been obtained with the consensus of them. They are located to a spreadsheet as shown in Table 3. Moreover, the consistency of the pair wise comparison matrices were examined, indeed it was determined that all the matrices were consistent.

Table 3.The fuzzy evaluation matrix with sub-criteria

Scale	A_1	A_2	A_3
A_1	(1,1,1)	(1, 3/2, 2)	(1/2, 1, 3/2)
A_2	(1/2, 2/3, 1)	(1,1,1)	(2/5, 1/2, 2/3)
A_3	(2/3, 1, 2)	(3/2, 2, 5/2)	(1,1,1)

By applying formula (2) given in Step 1:
$S1 = (2.5, 3.5, 4.5) * (0.08, 0.10, 0.13) = (0.2, 0.36, 0.59)$
$S2 = (1.90, 2.17, 2.67) * (0.08, 0.10, 0.13) = (0.15, 0.22, 0.35)$
$S3 = (3.17, 4, 5.5) * (0.08, 0.10, 0.13) = (0.25, 0.41, 0.73)$

Finally, by using formula (10), we obtain:

$V (S_1 \geq S_2, S_3) = Min (1, 0.87) = 0.87$
$V (S_2 \geq S_1, S_3) = Min (0.53, 0.35) = 0. 35$

V $(S_3 \geq S_1, S_2)$ =Min (1, 1) = 1

Therefore, the weight vector is calculated as:

W'= (0.87, 0. 35, 1)

The normalized weight vectors $(W_i = \frac{W_1}{\sum W_i})$

are obtained as follows:

A₁   A₂   A₃

$A_1 \quad A_2 \quad A_3$
W= (0.39, 0.16, 0.45)

In order to calculate the indicators of relative weights measure of the operations capabilities, were normalized scores that obtained from questionnaires similarly. Matrix of relative weights of these options is as follows:

$A_4 \quad A_5 \quad A_6$
W= (0.28, 0.18, 0.54)

7. Results

In modern competitive business world, organizations must enhance the quality of their products and services continually to stay ahead of the competition. In this context, making better performance is essential being that it enables organizations to assess where they stand in comparison to their competitors. Marketing capability involves integration of all marketing, related activities of a firm and using superior market knowledge from customers and competitions. Operations capability is the process, technology, reliability and quality of the overall operations of the firm. A coordinated effort by the firm makes these two capabilities as "immovable and inimitable". It can bring the competitive edge (Liebermann &Dhawan, 2005; Narsimhan, Rajiv, &Dutta, 2006). Day (1994) suggests that "every business develops its own configuration of capabilities" according to the environment, also "it is not possible to enumerate all possible capabilities". As has been noted, in this study, we capture two key drivers of firm performance, namely marketing capability and operations capability. Prioritizations of these capabilities affect their business performance. We used an AHP-Analytic for prioritizations marketing and operations. This methodology helps us to classify effective factors in the organization performance and indicates key factors. Using our methodology, the manager can identify the relative impact of performance parameters and understand the degree of complementarities between them.

Previous studies show marketing capabilities dominate organization's business performance, like

Dutta et al. (1999), Kotabe et al. (2002), Song et al. (2005), Vorhies and Morgan (2005). This is possible if an organization is able to deploy its, Intangible resources, tangible resources and marketing assets optimally to generate superior customer value using marketing capabilities unique, inimitable marketing capability. In addition, previous research on the integrative role of these functional capabilities on business performance shows that operations capability has a significant impact on an organization's business performance (Kelly & Flores, 2002). Given these facts, superior performance in operations capability (e.g. Cost of capital, Cost of labor, Technology) can enhance organization's ability to increase connectivity with their customers and suppliers, provide more flexibility in operations and improve the value proposition in the entire supply chain.

All results of above analysis showed between marketing capability and operations capability for increasing organizations performance, marketing capability will be more effective. Therefore, organizations should pay more attention to marketing capability and then operations capability for using of the opportunities and improving their performance. Also among marketing capability sub-criteria studied ,respectively (table4, table5): marketing assets, intangible resources, tangible resources and among operations capability studied, respectively: cost of capital, technology and cost of labor.

Table 4. Marketing capability indicator rankings

Series	Scale	Final score	Ranking
1	marketing assets	0.267	1
2	tangible resources	0.109	3
3	Intangible resources	0.308	2

Table5. Operations capability indicators Ranking

Series	Scale	Final score	Ranking
1	cost of capital	0.880	1
2	cost of labor	0.057	3
3	technology	0. 171	2

This review focuses on marketing capability, operations capability and we showed the marketing assets and cost of capital alternatives are the preferred key figure for better organizations performance. Likewise, although marketing capability has not only stronger impact on business performance, but also successful integration of functional capabilities is the key to success. Superior

marketing capability is essential for achieving maximum performance and improving efficiency then operations capability.

This study also has certain limitations. First, Fuzzy AHP is a highly complex methodology and requires more numerical calculations in assessing composite priorities than the traditional AHP; as a result, it increases the effort. Second, we focused on two key drivers of firm performance but more capability suggested by RBV theory. Third, secondary data do not provide different organizations. For the future research, fuzzy methodology could be extended with the other MCDM methods such as ANP, TOPSIS, ELECTRE and DEA. These methods have been recently developed to use in a fuzzy environment. Lastly, future research cans focuses on more key drivers of firm performance.

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References
1. Ainuddin, R. A., Beasmish, P. W., Hulland, J. S., & Rouse, M. J. (2007). Resource attributes and firm performance in international joint ventures. Journal of World Business, 42(1): 47–60.
2. Atuahene-Gima, K., & Murray, J. Y. (2007). Exploratory and exploitative learning in new product development: A social capital perspective on new technology ventures in China. Journal of International Marketing, 15(2): 1–29.
3. Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1): 99–120
4. Blesa, A. & Ripolle, M. (2007), the influence of marketing capabilities on economic international performance, International Marketing Review Vol. 25 No. 6, pp. 651-673
5. Day, G. S. (1994). The capabilities of market driven organizations, Journal of Marketing, 58, 37−51
6. Dickinson, J. (2008). The Role of Business Process Capabilities and Market-Based Assets in Creating Customer Value and Superior Performance, A Thesis Submitted to the Faculty Of Drexel University, ProQuest LLC.
7. Dutta, S., Narashiman, O., & Surendra, R. (1999). Success in high technology markets: Is marketing capability critical? Marketing Science, 18(4), 547−568
8. Griffith, A., Yalcinkaya, G., Calantone, J., (2010). Do marketing capabilities consistently mediate effects of firm intangible capital on performance across institutional environments, Journal of World Business 45, pp. 217-227
9. Gonzalez-Benito, O., & Gonzalez-Benito, J. (2005). Cultural vs. operational market orientation and objective vs. subjective performance: Perspective of production and operations. Industrial Marketing Management, 34, 797−830
10. Hayes, R. H., Wheelwright, S. C., & Clark, K. B. (1988). Dynamic manufacturing. NewYork: Free Press.
11. Hayes, R. H., & Pisano, G. P. (1996). Manufacturing strategy at the intersection of two paradigm shifts, Production and Operations Management, 5(1), 25−41
12. Kelly, S. W. O., & Flores, B. E. (2002). The integration of manufacturing and marketing/sales decisions: Impact on organizational performance. Journal of Operations Management, 20, 221−240
13. Kotabe, M., Srinivasan, S. S., & Aulakh, P. S. (2002). Multinationality and firm performance: The moderating role of R&D and marketing capabilities. Journal of International Business Studies, 33(1), 79−97
14. Liebermann, M. B., & Dhawan, R. (2005). Assessing the resource base of Japanese and US auto producers: A stochastic frontier function production approach, Management Science, 51(7), 1060−1075
15. Moore, M., & Fairhurst. A (2003). Academic paper marketing capabilities and firm performance in fashion retailing, journal of fashion marketing and management, Vol. 7 No. 4, pp. 386-397
16. Min, H., & Joo, S. J. (2006). Benchmarking the operational efficiency of third party logistics providers using data envelopment analysis, Supply Chain Management: An International Journal, 11(3), 259−265
17. Narsimhan, O., Rajiv, S.,&Dutta, S. (2006). Absorptive capacity in high technology markets: The competitive advantage of the haves, Marketing Science, 25(5), 510−524
18. Neil A. Morgan, Rebecca J. Slotegraaf, Douglas W. Vorhies (2009). Linking marketing capabilities with profit growth, intern. J. of Research in Marketing 26, pp. 84–293
19. Ortega, M. J. R., & Villaverde, P. M. G. (2008). Capabilities and competitive tactics influences on performance: Implications of the moment of

entry. Journal of Business Research, 61, 332−345

20. Ortega, M. J. R., & Villaverde, P. M. G. (2008). Capabilities and competitive tactics influences on performance: Implications of the moment of entry. Journal of Business Research, 61, 332−345

21. Prithwiraj, N., Subramanian, N. & Ramakrishnan, R. (2010). The impact of marketing capability, operations capability and diversification strategy on performance: A resource-based view, Industrial Marketing Management, Vol. 39, pp. 317–329

22. Roth, A. V., & Miller, J. G. (1990). Manufacturing strategy, manufacturing strength, managerial success, and economic outcomes, In J. E. Ettlie, M. C. Burstein, & A. Fiegenbaum (Eds.), Manufacturing Strategy (pp. 97−108), Norwell, Mass.: Kluwer Academic Publishers

23. Selcuk, P. (2008). Use of fuzzy AHP for evaluating the benefits of information-sharing decisions in a supply chain, Journal of Enterprise Information Management, Vol. 21 No. 3, pp. 263-284

24. Saaty, T.L. (1990), the Analytic Hierarchy Process, McGraw-Hill, RWS Publications, Pittsburgh, PA.

25. Song, M., Droge, C., Hanvanich, S., & Calantone, R. (2005). Marketing and technology resource complementarity: An analysis of their

interaction effect in two environmental contexts. Strategic Management Journal, 26(3), 259−276

26. Song, M., Benedetto, A. D., & Nason, R. W. (2007). Capabilities and financial performance: The moderating effect of strategic type. Journal of the Academy of Marketing Science, 35, 18−34

27. Song, M., Droge, C., Hanvanich, S., & Calantone, R. (2005). Marketing and technology resource complementarity: An analysis of their interaction effect in two environmental contexts. Strategic Management Journal, 26(3), 259−276

28. Song, M., Benedetto, A. D., & Nason, R. W. (2007). Capabilities and financial performance: The moderating effect of strategic type. Journal of the Academy of Marketing Science, 35, 18−34

29. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management, Strategic Management Journal, 18(7), 509−533

30. Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage, Journal of Marketing, 69(1): 80–94

31. Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. Journal of Marketing, 69, 80−94.

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