

# Taxonomy for Measurement of Firm-level Export Performance

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**Abstract** Exporting is crucial to a country's trade performance in terms of increasing its foreign exchange reserves and improving the terms of trade. At the firm-level too, exporting serves significant purpose by enhancing sustainability, profitability, and competitive position of firms in long-run. Hence, it is crucial to access the impact of exporting on the performance of such firms. Several measures, most of them multi-dimensional in nature, have been used to capture the construct of firm-level export performance. Past studies have used both absolute numbers as well as performance ratings as a part of measuring firms' export performance. It is also revealed that export performance being a multi-dimensional phenomenon is best represented by the use of certain key dimensions explaining the firms' performance in international markets. Research in this field is still evolving and paving way for further enrichment of its theoretical background. Assimilating the important work in this field, the paper highlights some key trends in measurement of firm-level export performance.

**Keywords** Exporting, Export Performance, Firm-level Export Performance, Meta-analysis

## 1. Introduction

In the current scenario, going global is essential for accelerating the growth and profitability of individual firms and enabling them to achieve sustained competitive advantages. This has led to a recent surge in the field of studies aimed at explaining firm-level export performance and the forces influencing it. Existing research has certainly enhanced the understanding of firms' export performance however; work in this field is still evolving. Several meta-analyses have highlighted the advances in this field e.g., Madsen [1], Aaby and Slater [2], Chetty and Hamilton [3], Leonidou and Katsikeas [4], Leonidou, Katsikeas, and Samiee [5], Zou and Stan [6], etc. These reviews have categorized several operational measures of firm-level export performance focusing on the key management areas viz. finance, strategy and human resources. Building upon

earlier work in this field, the current study aims to review the published empirical work in this field to throw light on usage of various measures of export performance at the firm-level. The article begins with methodology employed for the review, followed by its key results and concludes with directions for future research.

## 2. Research Problem

Export performance of firm constitutes an important stream of research in international business. With steady increase in international business, understanding the export performance at firm-level has become largely essential. However, the difficulties associated with assessing export performance have made its evaluation mostly an elusive goal [7]. Despite of various export performance measures mentioned in the literature, few selected ones that are frequently utilized include export intensity [8], export sales growth [1,10-11], export profitability [9], export market share [12], and satisfaction with the export venture [13]. The literature on measurement of firm-level export performance needs to be segregated on the basis of the way they are captured by the researchers. The current study aims at providing such a segregation thereby highlighting the use of various measures of firms' export performance<sup>1</sup>.

## 3. Methodology

The article focuses on empirical literature pertaining to commonly used measurements of firm's export performance. Studies in this review were identified by a process that includes a mix of electronic means with manual investigation. The identified articles come from some of the most popular journals in management and international business as can be seen in references to this paper. The approach used in this review is loosely based on meta-analysis technique. Classical meta-analysis requires a high degree of similarity amongst the studies reviewed with regard to the measurement of the variables and the statistical approach to data analysis [14], but as the firm-level export performance

studies are categorized by a diversity of measurement and analytical approaches only a weak form of meta-analysis is applied called the 'narrative approach' involving a subjective interpretation of the overall pattern of the variables used in measuring firm's export performance [2].

## 4. General Characteristics of the Reviewed Studies

Information on the studies' characteristics in terms of country(s) of the study, size of the sample, industry type, size of the companies studied, data collection method, analytical approach(s) and the unit of analysis used are discussed in subsequent paragraphs:

### 4.1. Country of the Study

Most of the initial work in firm-level export performance measurement was limited to developed countries including United States [7, 13, 16, 36] and certain European nations [12,19]. However, recently more studies have been devoted towards other countries as well. The studies covered in the review involve apart from US and UK countries like Greece [20], Northern Ireland [45], Finland [29], Brazil [31, 47]; India [10, 17, 32], Bangladesh [39], Taiwan [17], Jordan [42], Turkey [25, 48], Nigeria [27, 30], etc. This is an obvious indicator that firm-level export performance research has also gained momentum and credit in different parts of the world.

### 4.2. Size of the Sample

Sample size used in the studies lies within a range of 50 to about 1000 firms. However, majority of the studies reported sample size in the range of 100 to 250 [10, 17, 25, 39]. Considering the number of independent variables studied and the statistical tools applied, the sample size tends to vary with focus group studies using a relatively smaller sample [27, 30, 44] while studies applying complex statistical tools using a higher number [29, 31-33, 38, 41].

### 4.3. Industry Type

Majority of studies reviewed draw sample from multiple manufacturing industry. Some studies however, focused on a single industry type as their sample [8-12]. Singer and Czinkota [15] in their study also included service firms along with manufacturing firms. However, most of the studies in the field have incorporated manufacturing firms only in their samples. This observation may be attributed to the fact that relatively greater importance has been given to manufactured exports compared to service exports owing to generation of higher revenues by the former. But, this trend could limit the generalization of the findings to other industry contexts and hence, specific studies including service sector firms must

also be undertaken.

### 4.4. Size of Firms Studied

When looking at the size of firms included in the sample, most of the studies had firms from small and medium sized enterprises [25-27, 30, 33, 37, 38, 42, 45, 48-51]. It may be so because exporting by small and medium-sized firms forms the backbone of a country's economy. Also emphasis on this sector can be attributed to the facts that it leads to employment generation, reduces regional disparities of industries and promotion of effective entrepreneurship, particularly in developing economies. However, there were studies incorporating larger firms too in their sample [7-8, 31, 47] highlighting the determinants of success in case of large scale exporting firms.

### 4.5. Data Collection Methods

Majority of the studies reviewed used survey as a mean for data collection. Although, mail surveys were most preferred, the use of focus groups and in-depth interviews was also made to ascertain accurately the firms' response in an exploratory manner [16, 23, 27, 30].

### 4.6. Statistical Analysis Tools

A wide mix of statistical tools was made including regression techniques [10-11, 31-33, 35, 49-51], *t*-test, chi-square test, ANOVA, discriminant analysis, factor analysis and log linear model [7, 22, 27, 46]. Another approach which has become popular more recently is the use of structural equation modeling [25, 29, 41, 47, 48] as it enables more complex relationships to be studied simultaneously.

### 4.7. Unit of Analysis

Most of the studies used 'firm' as the unit of analysis [7-10, 25, 33, 41, 42, 49-51]. However, certain studies also used a particular 'export venture' as desired unit of analysis [16, 28, 35, 38, 46, 47]. The appropriate level of analysis depends on the aim of the study. If the aim of the study concerns predicting the overall performance of the firm the appropriate level of analysis could be the 'firm-level'; while for studying specific product lines use of 'export venture' is considered worthwhile.

## 5. The Measurement of Firm-level Export Performance

Operationalization of the construct of 'firm-level export performance' has largely been diverse [16]. The article includes diverse performance indicators used by researchers to capture the multi-dimensionality aspect of the construct.

In this article, the measures of export performance used are grouped into two broad categories representing the ‘observed’ and the ‘perceived’ measures. ‘Observed measures’ are those indicators which are based on the absolute value of firm’s export sales volume, profits, market share, etc. amongst others; whereas, the ‘perceived measures’ includes management’s perception of the similar indicators. Research also reveals that observed and perceived measures are found to be positively co-related with each other [17]. Scholars in the field generally supports the use of perceived indicators over observed ones, as the decision makers are mostly comfortable in disseminating the company information on perceived ratings scales rather than the absolute observed values [18].

The studies in the article have measured export performance of the firms (either perceived or observed or both) under the following labels Tables 1 and 2):

(i). the ‘sales’ category including measures of growth in export sales or relative measures like ratios of export sales to total or domestic market sales;

(ii). the ‘profit’ including measures of overall export profitability or relative measures like ratios of export profit to total or domestic market profit;

(iii). the ‘growth-market share’ measuring the changes in export sales or profits over a period of time, all measured either in absolute terms for observed measurement or rated on a perceptual scale for perceived measurement;

(iv). ‘satisfaction derived’ measuring the managers’ overall satisfaction with the company’s export performance and finally,

(v). ‘composite scales’ measuring the overall scores on a mix of above mentioned performance measures.

Table 1 gives classification and frequency of use of firm’s export performance measures of the reviewed studies. Table 2 gives the measures of firm-level export performance as used by various authors.

Where, OBS= Observed Measures and PER= Perceived Measures; Source: Researcher’s Compilation

**Table 1.** Classification of the Measurements of Firm-level Export Performance

Firm-level Export Performance Measures		
Observed Measures(OBS)	Codes	Frequency of use
Sales related	OBS-S	07
Profit related	OBS-P	05
Growth-Market share related	OBS-GM	03
Composite scales	OBS-COM	06
Perceived Measures(PER)		
Sales related	PER-S	03
Profit related	PER-P	04
Growth-Market share related	PER-GM	04
Satisfaction derived	PER-ST	04
Composite scales	PER-COM	17

**Table 2.** Firm-level Export Performance Measures of Studies Reviewed

Authors	Ref. No.	OBS*	PER*
Al-Hyari et al. (2011)	[42]		PER-S, PER-P
Alvarez (2004)	[33]	OBS-S	
Axinn and Thach (1990)	[9]	OBS-S	
Ayan and Percin (2005)	[25]	OBS-COM	PER-COM
Boehe and Cruz (2010)	[41]		PER-COM
Bonner and McGuinness (2007)	[45]	OBS-P	
Brouthers et al (2009)	[26]		PER-S, PER-P
Cadogan et al (2012)	[29]		PER-COM
Carneiro, Rocha and Silva (2011)	[47]		PER-COM
Cavusgil and Zou (1994)	[16]		PER-COM
Chugan (1997)	[10,11]	OBS-GM	
Contractor, Hsu and Kundu (2005)	[17]	OBS-COM	
Diamantopoulos and Schlegelmilch (1994)	[12]	OBS-S	
Durmusoglu et al (2012)	[46]		PER-COM
Francis and Collins-Dodd (2004)	[18]	OBS-S,OBS-GM	PER-ST
Freeman, Styles and Lawley (2012)	[37]	OBS-S,OBS-P	PER-GM,PER-ST
Gencturk and Kotabe (2001)	[7]	OBS-S,OBS-GM	PER-P,PER-ST
Gertner, Gertner and Guthery (2006)	[31]	OBS-COM	PER-COM
Ibeh (2003)	[27]		PER-GM
Karelakis, Mattas, Chrysochoidis (2008)	[20]		PER-COM
Katsikeas, Piercy, Ioannidis (1996)	[23]		PER-ST
Koh (1991)	[22]	OBS-P	
Lages, Lages and Lages (2004)	[19]		PER-COM
Lages and Montgomery (2004)	[38]		PER-COM
Lages, Silva and Styles (2009)	[28]		PER-COM
Lall and Kumar (1981)	[8]	OBS-P	
Ling-yeo and Ogunmokun (2001)	[35]		PER-COM
Majumdar (1997)	[32]	OBS-P	
Marandu (1995)	[44]	OBS-S	
Morgan, Kaleka and Katsikeas (2004)	[36]		PER-COM
O'Cass and Julian (2003)	[34]		PER-GM
Okpara (2009)	[30]	OBS-COM	
Shamsuddoha and Ali (2006)	[39]		PER-COM
Shoham (1996)	[24]	OBS-COM	
Singer and Czinkota (1994)	[15]		PER-COM
Singh and Chugan (2013a)	[50]		PER-P
Singh and Chugan (2013, 2013b)	[49, 51]		PER-COM
Sousa and Bradley (2008)	[43]		PER-COM
Ural (2009)	[48]		PER-COM
Zou, Taylor and Osland (1998)	[13]		PER-COM
Zou, Fang and Zhao (2003)	[40]		PER-S,PER-P, PER-GM

\*see Table 1 for codes of firm-level export performance measures, and for Ref. Nos. see the list of References.

## 6. Conclusions

The above table highlights the use of different export performance measures in the empirical literature particularly from the past one decade (Table 2). Looking at the type of measurement, most of the studies have used composite scales rather than using a single indicator for measuring export performance to capture its multi-dimensional nature. Further, these composite scales were measured mostly on their perceived ratings (Table 1). However, the choice of type of measurement by the researcher is found to depend on some key factors like:

(i). the unit of analysis i.e., 'firm' or 'export venture'. For 'firm' level data it is found that 'observed values' are more used for measuring export performance, as at that broad level the financial and sales related dimensions are easy to reveal by the firms' management. For example, Bonner and Mcguinness [45] in their study utilized firm-level data for a sample of Irish SMEs to access the impact of marketing assistance on export performance of firms, where the sample firms' export performance was measured as observed values of employment, turnover and assistance granted. Similarly, Chugan's [10] study of Indian auto-parts industry used data on annual exports and sales to measure firms' export performance.

At the 'export venture' level, it is found that the use of 'perceived ratings' is favored because for export ventures which include special product/market lines, management responses are generally blurred applying to a range rather than accurate figures. E.g., studies by Carneiro, Rocha and Silva [47], Durmusoglu et al [46], Lages and Montgomery [38], Lages, Silva and Styles [28], Ling-ye and Ogunmokun [35] etc., have used composite scales based on management's perception of export activity as the measures of export-venture level performance.

(ii). size of the firms is also a deciding factor on whether the data used is based on observed or perceived values. Studies focusing on SMEs have mostly used managerial perceptions relating to different aspects of firms' export activity viz. sales, profits, market share, satisfaction with exporting, etc., in operationalizing the export performance construct [26, 27, 37, 39, 42, 46, 48]. While studies on large scale firms were using more of absolute data, since it is easier to get data on sales and profitability related aggregates in this case [8, 24, 32].

(iii). the extent of internationalization was also found to influence the kind of export performance measure used. For the firms which were relatively new to exporting, the commonly used measures of export performance included total sales and profitability in the short-run. While for the established exporters, increasing the market share and deriving satisfaction from exporting were the criteria focused upon [7, 11, 18].

(iv). finally, the research design adopted by the study also influenced the measures of export performance used. Cross-sectional research designs used more of 'perceived' managerial responses [7, 34, 40, 48-51] while the studies

using longitudinal design utilized 'observed' absolute/relative values over a period of time to measure performance [10, 11, 32].

## 7. Directions for Future Research

Considerable advancement has been made towards the empirical testing of firm-level export performance especially in the past decade. The number of studies conducted outside US/UK has grown considerably, incorporating diverse countries which is a positive trend as their inclusion will help in investigating whether the current knowledge can be generalized globally. Since, firm-level export performance is a multi-dimensional concept; it needs to be studied using various relevant indicators explaining the firm's performance in foreign markets. Few studies [13, 16, and 19] have dwelled explicitly on developing concrete models and multi-dimensional scales leading to strengthening of the theoretical foundations of this field. For this there is a need for further exploratory studies to assess more encompassing frameworks of measuring firm's export performance.

Further, there are some points which researchers may keep in mind while doing their future empirical work in this area:

(i). most of the past studies have incorporated in their samples firms from SME sector only; hence more work should be done focusing on large scale firms too.

(ii). cross-country studies could also be undertaken to compare and generalize the findings from different sectors. Comparisons could be made using samples from developed and developing nations simultaneously.

(iii). service sector firms have been largely neglected in the past empirical work which is another area to be focused upon. E.g., Singer and Czinkota [15] in their study included service firms too along with the manufacturing firms.

(iv). lastly, the dearth of longitudinal studies is an inhibiting factor to dynamic model building. Future work should therefore, consider adopting a longitudinal design which might help with the development of firm-level export performance theory by evaluating the long-term effect of the functional relationships between firms' export performance and its determinants.

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## REFERENCES

- [1] T.K. Madsen. Empirical Export Performance Studies: A Review of Conceptualizations and Findings, in Cavusgil, S.T. (ed.), *Advances in International Marketing*, Greenwich, CT; JAI Press, 2:177-198, 1987
- [2] N.E. Aaby, and S.F. Slater. Management Influences on Export Performance: A Review of the Empirical Literature 1978-88. *International Marketing Review*, vol.6, no.4, pp. 7-25, 1989
- [3] S.K. Chetty, and R.T. Hamilton. Firm-Level Determinants of

- Export Performance: A Meta-Analysis. *International Marketing Review*, vol.10, no.3, pp. 26-34,1993
- [4] L.C. Leonidou, and C.S. Katsikeas. The Export Development Process: An Integrative Review of Empirical Models. *Journal of International Business Studies*, Vol.27, No.3, pp.517-551,1996
- [5] L.C. Leonidou, C.S. Katsikeas, and S. Samiee. Marketing Strategy Determinants of Export Performance: a Meta-Analysis. *Journal of Business Research*, vol.55, no.1, pp. 51-67,2002
- [6] S. Zou and S. Stan. The Determinants of Export Performance: A Review of the Empirical Literature between 1987 and 1997, *International Marketing Review*, 14(2): 107-123,1998
- [7] E.F. Gencturk and Kotabe, M. The Effect of Export Assistance Program Usage on Export Performance: A Contingency Explanation. *Journal of International Marketing*, Vol.9 No.2,2001
- [8] S. Lall, and R. Kumar. Firm-Level Export Performance in an inward-looking economy: The Indian Engineering Industry. *World Development*, Vol.9, No.5, pp.453-463,1981
- [9] C.N. Axinn, and S.V. Thach. Linking export performance to the marketing practices of machine tool exporters in Cavusgil, S.T. and Axinn, C. (Eds), *Advances in International Marketing*, JAI Press, Greenwich, CT, Vol. 4, pp. 117-39,1990
- [10] P. K. Chugan, Factors Affecting the Inter-firm Variations in Export Performance: A Case of Indian Autoparts Industry. *The Indian Journal of Economics*, Vol. LXXIX, No. 312: pp-45-64, July 1998, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2168044](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2168044)
- [11] P. K. Chugan, Foreign Collaboration and Export Performance: A Case of MNCs' Affiliate and Local Enterprises in Indian Automobile Industry. *The Indian Journal of Economics*, Vol. LXXVII, No. 306, Jan. 1997, pp. 373-390. <http://ssrn.com/abstract=2164966>
- [12] A. Diamantopoulos, and B.B. Schlegelmilch. Linking Export Manpower to Export Performance: A Canonical Regression Analysis of European and US Data, in Cavusgil, S.T., and Axinn, C. (eds.). *Advances in International Marketing*, JAI Press, Greenwich, CT, 6: 161-181,1994
- [13] S. Zou, Taylor, C.R. and Osland, G.E. The EXPERF Scale: A Cross-National Generalized Export Performance Measure. *Journal of International Marketing*, Vol.6, No.3, pp.37-58,1998
- [14] L.V. Hedges, and I. Olkin. Vote-counting methods in research synthesis. *Psychological Bulletin*, Vol. 88 No. 2, pp. 359-69,1980
- [15] T.O. Singer and Czinkota, M.R. Factors associated with effective use of export assistance. *Journal of International Marketing*, Vol.2, No.1,1994
- [16] S.T. Cavusgil and Zou, S. Marketing strategy – performance relationship: an investigation of the empirical link in export market ventures. *Journal of Marketing*, 58, 1–21,1994
- [17] F.J. Contractor, Hsu, C. and Kundu, S.K. Explaining Export Performance: A Comparative Study of International New Ventures in Indian and Taiwanese Software Industry. *Management International Review*, Vol. 45, No. 3, Aspects of the Internationalization Process in Smaller Firms , pp. 83-110,2005
- [18] J. Francis and Collins-Dodd, C. Impact of export promotion programs on firm competencies, strategies and performance. *International Marketing Review*, 21(4), 474–495,2004
- [19] C. Lages, Lages, C.R. and Lages, L.F. The RELQUAL scale: a measure of relationship quality in export market ventures. *Journal of Business Research*, 58(2005) 1040-1048,2004
- [20] C. Karelakis, Mattas, K. and Chrysochoidis, G. Greek Wine Firms: Determinants of Export Performance. *Agribusiness*, Vol.24,2008
- [21] S.T. Cavusgil and Kirpalani, V.H. Introducing products into export markets: success factors. *Journal of Business Research*, 27, 1–15,1993
- [22] A.C. Koh. Relationships among Organizational Characteristics, Marketing Strategy and Export Performance. *International Marketing Review*, 83(3):46-60,1991
- [23] C.S. Katsikeas, Piercy, C. and Ioannidis, C. Determinants of Export Performance in a European Context. *European Journal of Marketing*, 30(6):6-35,1996
- [24] A. Shoham. Marketing-mix standardization: determinants of export performance. *Journal of Global Marketing*, Vol. 10 No. 2, pp. 53-73,1996
- [25] T.Y. Ayan and Percin, S. A Structural Analysis of the Determinants of Export Performance: Evidence from Turkey. *Innovative Marketing*, Volume 1, Issue 2,2005
- [26] L.E. Brouthers, Nakos, G., Hadjimarcou, J. and Brouthers, K.D. Key Factors for Successful Export Performance for Small Firms. *Journal of International Marketing*, Vol.17, No.3, pp.21-38,2009
- [27] K.I.N. Ibeh. On the internal drivers of export performance among Nigerian firms: empirical findings and implications. *Management Decision*, Vol. 41 Iss: 3 pp. 217-225,2003
- [28] L.F. Lages, Silva, G., and Styles, C. Relationship Capabilities, Quality, and Innovation as Determinants of Export Performance. *Journal of International Marketing*, Vol. 17, No.4,2009
- [29] J.W. Cadogan, Sundqvist, S., Puumalainen, K. and Salminen, R.T. Strategic flexibilities and export performance: The moderating roles of export market-oriented behavior and the export environment. *European Journal of Marketing*, Vol.46 Iss: 10 pp. 1418-1452,2012
- [30] J.O. Okpara. Strategic choices, export orientation and export performance of SMEs in Nigeria. *Management Decision*, Vol. 47 Iss: 8 pp. 1281-1299,2009
- [31] R.K. Gertner, Gertner, D. and Guthery, D. The Implications of Export Performance Measurement for the Significance of the Determinants of Export Performance: An Empirical Investigation of Brazilian Firms. *Journal of Global Marketing*, Vol.20 (1),2006
- [32] S.K. Majumdar. The Impact of Size and Age on Firm-Level Performance: Some Evidence from India. *Review of Industrial Organization*, 12: 231-241,1997
- [33] R. E. Alvarez. Sources of export success in small- and medium-sized enterprises: The impact of public programs. *International Business Review*, 13(3), 383–400,2004

- [34] A. O' Cass and Julian, C. Examining firm and environmental influences on export marketing mix strategy, *European Journal of Marketing*, 37(3/4): 366-384,2003
- [35] L. Ling-yee and Ogunmokun, G.O. Effect of Export Financing Resources and Supply Chain Skills on Export Competitive Advantages: Implications for Superior Export Performance. *Journal of World Business*, 36(3),260-279,2001
- [36] N.A. Morgan, Kaleka, A. and Katsikeas, C.S. Antecedents of export venture performance: a theoretical model and empirical assessment. *Journal of Marketing*, 68, 90–108,2004
- [37] J. Freeman, Styles, C. and Lawley, M. Does firm location make a difference to the export performance of SMEs? *International Marketing Review*, Vol.29 Iss: 1 pp. 88-113,2012
- [38] L. F. Lages and Montgomery, D. B. Export performance as an antecedent of export commitment and marketing strategy adaptation, Evidence from small and medium-sized exporters. *European Journal of Marketing*, Vol.38 No. 9/10, pp. 1186-1214,2004
- [39] A. K. Shamsuddoha and Ali, M. Y. Mediated effects of export promotion programs on firm export performance. *Asia Pacific Journal of Marketing and Logistics*, 18(2), 93–110,2006
- [40] S. Zou, Fang, E. and Zhao, S. The Effect of Export Marketing Capabilities on Export Performance: An investigation of Chinese Exporters. *Journal of International Marketing*, Vol.11, No.4, pp. 32-55,2003
- [41] D.M. Boehe and Cruz, L.B. Corporate Social Responsibility, Product Differentiation Strategy and Export Performance. *Journal of Business Ethics*, 91:325-346,2010
- [42] K. Al-Hyari and Abutayeh. Exporting Performance and Manufacturing Activities in Jordanian SMEs: External Barriers and Relationships. *International Journal of Global Business*, 4(1), 44-72,2011
- [43] C. M. P. Sousa and Bradley, F. Antecedents of international pricing adaptation and export performance. *Journal of World Business*, 43 pp. 307-320,2008
- [44] E. E. Marandu. Impact of export promotion on export performance: A Tanzanian study. *Journal of Global Marketing*, 9(1/2), 9–40,1995
- [45] K. Bonner and McGuinness, S. Assessing the impact of marketing assistance on the export performance of Northern Ireland SMEs. *International Review of Applied Economics*, 21(3), 361–379,2007
- [46] S.S. Durmusoglu, Apffelthaler, G., Nayir, D.Z., Alvarez, R. and Mughan, T. The effect of government-designed export promotion service use on small and medium-sized enterprise goal achievement: A multi-dimensional view of export performance. *Industrial Marketing Management*, 41(2012), pp 680-691, 2012
- [47] J. Carneiro, Rocha, A. da., and Silva, J.F.da. Determinants of Export Performance: a Study of Large Brazilian Manufacturing Firms. *Brazilian Administration Review*, Curitiba, v.8, n.2, art.1, pp. 107-132, 2011
- [48] T. Ural. The effects of relationship quality on export performance: A classification of small and medium-sized Turkish exporting firms operating in single export-market ventures. *European Journal of Marketing*, Vol.43 Iss:1, 2009
- [49] S. Singh and Chugan, P. K. The Relationship Marketing: Effect on Firms' Export Performance (A study of small and medium sized exporters in Gujarat state of India). *Changing Paradigms in Services Marketing*, Eds. Ashwini K. Awasthi, Sanjay Jain and Jayesh Aagja, Himalaya Publishing House, 2013, Mumbai, pp.18-29, 2013 Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2212030](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2212030)
- [50] Singh, Shivangi and Chugan, Pawan K., Impact of Relationship Quality on Firm's Export Profitability: A Study of SMEs in Gujarat. *Adarsh Journal of Management Research*, Bangalore, Vol. 6, Issue 2, Sept. 2013a, pp. 15-23. September 2013. <http://ssrn.com/abstract=2422780>
- [51] Singh, Shivangi and Chugan Pawan K. Impact of Firms' Clustering on Export Performance of the Constituent Units: A Study of Brassware Manufacturing Firms in Jamnagar. *Hi de Abstract Journal of Macroeconomic Dynamics Research (JMDR)*, Vol.1, No. 2, Sciknow Publications Ltd., New York, USA, pp. 23-27, July 2013b. <http://ssrn.com/abstract=2347611>
- [52] Chugan, P. K. and Singh, Shivangi. (2014). Taxonomy for Firm-level Determinants of Export Performance. *Universal Journal of Industrial and Business Management*, 2 , 6 - 12. doi: 10.13189/ujibm.2014.020102.
- [53] [http://www.hrpub.org/journals/article\\_info.php?aid=1068](http://www.hrpub.org/journals/article_info.php?aid=1068)

<sup>i</sup> NOTE: The current article focuses on the review of literature pertaining to the measures of firm-level export performance only. For the review of literature on the determinants of firm-level export performance, readers may like to see, Chugan and Singh [52].