Mind Your Product-Market Strategy on Selecting Marketing Inputs: An Uncertainty Approach in Indian Context

Susmita Ghosh, Bhaskar Bhowmick

Abstract—Market is an important factor for start-ups to look into during decision-making in product development and related areas. Emerging country markets are more uncertain in terms of information availability and institutional supports. The literature review of market uncertainty reveals the need for identifying factors representing the market uncertainty. This paper identifies factors for market uncertainty using Exploratory Factor Analysis (EFA) and confirmed the number of factor retention using an alternative factor retention criterion 'Parallel Analysis'. 500 entrepreneurs, engaged in start-ups from all over India participated in the study. This paper concludes with the factor structure of 'market uncertainty' having dimensions of uncertainty in industry orientation, uncertainty in customer orientation and uncertainty in marketing orientation.

Keywords—Uncertainty, market, orientation, competitor, demand.

I. INTRODUCTION

SINCE long, environmental uncertainty has been the central research concept of entrepreneurship and organization research. The dynamic and complex nature of the environmental components initiates a sense of uncertainty for the key decision maker. "Uncertainty" is currently one of the most important research areas in the entrepreneurship and management literature because it restricts the entrepreneurs from taking entrepreneurial actions such as new product development, entry into new market, etc. [1]. This scenario is more obvious in case of start-ups due to resource crunch, lack of knowledge and market information. Uncertainty is more pertinent when the decision making is dependent on the future state of the environment, because future state of it or the effect of any action based on the decision is not known [2].

Uncertainty is lack of information, unpredictability, sense of doubt and hesitancy [3], [4] and has been explained from: contingency view point; and perceptual view point. Milliken [5] proposed an aggregated view point, explaining uncertainty as: state, effect and response uncertainty. Though uncertainty has been explained and measured broadly as 'Environmental uncertainty', Miles and Snow [6] posited that it is not sufficient and it is important to identify and measure the various components of the firm's environment that acts as source of uncertainty for the firm. These environmental components (customer, competitor, supplier, market,

technology, government, resource) differentially affect operational and strategic decision of a firm [7], [8]. This is so because uncertainties are firm specific and are perceived by the top management of an organization and they take different strategic actions to cope with it [9]. So, this has direct implication on startups and their decision making context. Among the different components of the environment, market and technology characteristics are important measures of the firm's environment. Market is the most important and susceptible part for start-ups and it is important to scan the market continuously as market acts as a channel to reach the customers for product communication and offerings.

Market is the most vulnerable area for a firm's decision making unit. So, one of the major difficult activity for a firm is undergoing the marketing decision. Marketing decision deals with information related to the pricing options, customer identification i.e. identifying the need and wants of a customer, information related to the targeted niche market and market segment for identifying recent market trends and demand patterns. As "market is the playing field for the competitors" [10], information related to the competitor's action and strategy is also one of the significant aspects of marketing decisions. Often the firm faces problem in decision making because these information are not complete because of uncertainty in the firm's business environment. This inadequacy in information is generated either due to no information or change in information or may be due to the complexity in the information (mainly caused due to state, effect and response uncertainty as proposed by [5]). Due to this whole scenario, mostly the start-ups are affected as they are exposed to a number of other obstacles such as resource scarcity, lack of expertise and knowledge, lack of manpower, etc.

In case of start-ups, new product development is an important activity for their viability [11]. Product development, launching and positioning are the three crucial actions for start-ups and are highly uncertain because--- new products are associated with market uncertainty. Often new products fail due to inaccurate strategy formulation based on the information related to historical market data, market conditions, customer and competitor's activities. So, developing products based on customer's demand or customer's requirement is more successful. Therefore, the firm should focus on generation and response to market information for their viability and growth. So, uncertainty in a business environment motivates the decision maker to take

Susmita Ghosh is with the RMSoEE, Indian Institute of Technology, Kharagpur, India (phone: +919734029965; e-mail: susmita.gh@ gmail.com).
Bhaskar Bhowmick is with RMSoEE, Indian Institute of Technology, Kharagpur, India (e-mail: bhowmickb@gmail.com).

World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:9, No:5, 2015

action in order to response back to uncertain situations [12]. These actions are entrepreneurial in nature and are referred as entrepreneurial orientation. Entrepreneurial orientation is the mindset of entrepreneurs to engage in creative activity to pursue opportunities for a new venture growth and survival. The various dimensions of entrepreneurial orientation are innovativeness, proactiveness, risk taking autonomy and competitive aggressiveness. This shows that success of a product depends on multi-dimensional factors. For start-ups and SMEs, customer focus is one of the most vital success criteria because these types of firms generally faces resource crunch that makes them unable to explore other sources to gain profit [13]. Therefore, marketing strategy, customer's demand and competitor's orientation anchored together acts as an important decision making variable during new product development. This is because from market point of view, customer satisfaction and market share measures the product success. Therefore, it is important for firms to accumulate information regarding market trends, customer's preferences and competitor's actions, forming the basis for coping with market uncertainty. In fact, market uncertainty is one of the primary reasons for product failure [14], [15] and this is very obvious for start-ups in emerging country. Therefore, to solve this dilemma and manage market uncertainty better, it is important to identify the market uncertainty factors for start-ups, especially in emerging countries.

II. Literature Review

Market uncertainty is explained as "While known factors are already reflected in efficient market prices, the main sources of market instability are unknown factors. These unknown factors shall not be referred to as market risk, but as "market uncertainty" [16]. In this research, we have defined market uncertainty as perceived unpredictability of the change in the market environment of a firm, its effect on the future state of a firm and related indecisiveness about the response options. Categorization of market uncertainty as identified by [17] is 'market newness' and 'market turbulence'. Increasing number of market elements, increases complexity of the market for a firm. Therefore, lack of information about the firm's future market direction causes market uncertainty. Receipting and accomplishment of entrepreneurial endeavors increases market turbulence and interaction of stability and complexity nurtures market uncertainty [18], [19]. Emerging new markets and speedy-change in the market creates unpredictability about the customer base, their need, wants and satisfaction level [20], [21] initiating high market uncertainty. Customers and competitors are two of the key variables of market that acts as significant decision making variable. Some literature relates market uncertainty to financial market uncertainty [22]. Here, researchers relate market uncertainty to product market uncertainty i.e., unpredictability of the change in the customer, competitor and market behaviour. Researchers consider customer focus as the most fundamental aspects of a corporate environment [23], [24]. The rationale behind the high profiling of customer focus is the marketing first. Firm when places highest priority on the

process for providing superior customer value, it results in "increased boundary spanning activity" [25]. Therefore, a firm that focuses more on customer satisfaction fosters continuous innovation [26]. So, it is clear that innovative firms are more customers focused. This has also been explained by [24] as an existence of "positive correlation between customer orientation and innovative firms". Research explained the firms that lay emphasis on superior customer value are engaged in innovation throughout the business lifecycle [27]. Thus, customer focused environment of a firm facilitates the firm to be innovative in nature. This is supported by the marketing concept [28]. Marketing concept provides a firm with forward-looking insights, making customer focused firms more interested in developing long term businesses [28]. Customer focus is not the only strategy to obtain product success. Unbalanced focus of the firm on competitor's action will lead to negligence of the customer's dilemma [24]. It is been proposed by [29] that achieving competitive advantage in the market place would require a balanced mix of firm's customer and competitor focus. Focus on competitor's actions is based on the information related to competitor's nature, their technological offerings and their product development and launching strategy [30]. This helps a firm to identify its own strong and weak points keeping it ahead of all in the field. Speed of change of environmental components, often, creates a rapid change in the competitor's strategic actions. This creates a difficulty for the firm to trace the next level action of the competitors, creating an obstacle in gaining competitive advantage by the firm [31], [32]. Thus, to succeed in this rapid changing environment, firms need to engage in continuous development of new products for their viability. So, there is always a requirement for the firms to understand the market scenario. This involves understanding the causes or factors of market uncertainty that acts as an obstacle during decision making by the firm. Market uncertainty is influenced by the degree of market instability [34] and under highly instable market condition, probability of firm's failure increases. Start-up's market entry has a catalytic effect on the instable conditions of a market [35]. Therefore, introduction, development and commercialization of opportunities are influenced by market uncertainty [34], [23]. Market uncertainty has a moderating effect on the speed and success relationship of new products [40], [41] and has also got a moderating effect on the relationship of governance fit (distribution channel) and the channel performance and satisfaction [31]. Market Uncertainty has an impact on 'organizational change' [31], 'resource acquisition' [32] and 'product innovation' [33]. Therefore, it is very important for the firms to focus on the factors of market uncertainty that affects a firm's decision making. While researchers often identified and examined the measures of market uncertainty in the context of large firms in developing countries, they overlooked these measures for small firms.

There are several scales developed by [34]-[36], for measuring perceived environmental uncertainty as a whole. For example the scale developed by [37], measured job related uncertainty of an organization and the scale developed by [18]

World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:9, No:5, 2015

tried to measure the environmental characteristics (simple-complex and static-dynamic) that contribute perception of uncertainty for the decision makers [38] , on the basis lack of information, lack of knowledge for decision effect, and inability to assign probabilities. Several limitations of both the scales were reported by [5]. Several other attempts were made to develop the measures of PEU related to the firm's external environmental components. Miller [39], instrument presented measures of PEU relevant to international business. His scale included measures of product market and demand uncertainty and also competitor uncertainty as individual measures. Miles and Snow [6] developed a scale for perceived environmental uncertainty. The scale developed by him got a wide familiarity and was widely used by researchers like [40]. This scale also included the measures of the firm's external environmental components. All the studies were conducted in developed countries and for developed firms.

Though the literature, as discussed provides some scattered measures of uncertainty in some specific context, this study tries to identify the measures of market uncertainty for start-ups in Indian context. Emerging country perspective brings this issue of uncertainty more relevant as it is characterized by institutional failure for legal protection, property rights, commercial laws, and non-transparent and bureaucratic legal systems. Moreover social, economic and political shifts following discontinuities in Indian environment make the situation more complex [41], [42].This brings the objective of the paper as identifying the factors of market uncertainty.

III. OBJECTIVE

Market is one of the most significant and critical area for the decision maker of a start-up. Decision making in a start-ups is affected by the uncertainty in the market. Therefore, in this paper, we aim to develop a modified market uncertainty scale for Indian startups and test its reliability and validity.

IV. METHODOLOGY

Based on literature review and interview of the founders of start-ups, a survey questionnaire was developed to measure the factors that are responsible for market uncertainty in Indian start-ups. This uncertainty scale consisted of 16 items. Each item of the instrument was scored on a five point likert-type scale that ranged from 1-highly predictable to 5-highly unpredictable.

A. Measures

The survey questionnaire assessed market uncertainty by focusing on market situation and demand, customer's preference and competitor's action. The survey questionnaire consisted of variables such as uncertainty related to time-to-market, availability of substitute product, availability of complementary products, and investment for advertising, demand and proper forecasting, customer preferences, relationship with customer, recognition of product utility, recognition of product value, changes in competitor's price and market, new entry of firms in the market, changes in competitor's product mix and advertising strategy, etc.

B. Data Collection

At the 1st stage a pilot study by randomly selecting 140 start-ups was administered from July to August 2013. 75 valid questionnaires were received back with 5 incomplete questionnaires. The reliability and validity tests for the pilot study indicated acceptability of the scale. On the 2nd phase questionnaires were mailed over to 500 founders and co-founders of start-ups of which total of 356 questionnaires were collected back with 42 incomplete and 8 were removed after data cleaning. So, the final analysis was conducted using 306 responses. The survey was mailed over a three week period on August, 2013.

V. RESULTS AND ANALYSIS

Table I gives the Cronbach's α value of the instrument (internal consistency or reliability of an instrument), Item-total correlation values and reliability value (Cronbach's α) if any of the items were deleted. Reliability of the scale was found to be α = 87.2 %, indicating a high level of internal consistency of the market uncertainty scale developed for this study, Item-Total Correlation shows satisfactory results with no negative item-total correlations and we can see that removal of any item (MU1, MU2, MU3, MU4, MU5, MU6, MU7, MU8, MU9, MU10, MU11), would not provide a better reliability (Cronbach's alpha) of the scale. Therefore, none of the items will be removed from the scale. Thus this scale will be used for further studying the factors that are responsible for market uncertainty.

The scale construct validity was determined using principal component analysis method with varimax rotation. To test the suitability of the scales for factor analysis, Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO) tests were performed. Bartlett's Test of Sphericity examines the inter-independency of the subscales of the scales and KMO for examining the sample sufficiency [43]. Sample sufficiency index KMO (Compares the size of the coefficient of the observed correlation to partial correlation for the sum of variable) gave a value of 79%, showing the reliable result by exceeding the minimum criteria of 0.50. The Sphericity Test given by Bartlett's test shows that null hypothesis (All correlation coefficients are not quite far from zero) is rejected at the level of significance p<0.0005 for approx., with Chi-Square value 2148.834. All the coefficients are not zero, satisfying the second acceptance of the factor analysis. Thus we can proceed as both the acceptances for conducting factor analysis are satisfied [44]. The sixteen variables in the analysis satisfy the criteria for appropriateness of factor analysis. The next step is to determine the number of factors that should be included in the factor solution.

Table II gives the Total Variance Explained for the instrument. Therefore, the latent root criterion for number of factors to retain indicates five components to be extracted for these variables. According to the analysis of Table II, the cumulative proportion of variance criteria would also require four uncorrelated factors to explain more than 60% of the whole inertia of data.

World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:9, No:5, 2015

TABLE I
MARKET UNCERTAINTY INSTRUMENT RELIABILITY ANALYSIS

Variables of Market Uncertainty construct	Item-total correlation	Cronbach's α	Cronbach's α if Item Deleted
Uncertainty about user requirement and preferences	0.585	.872	0.861
Uncertainty about recognition of product value by customer	0.51		0.865
Uncertainty about recognition of product utility by customer	0.53		0.864
Uncertainty about relationship with customer	0.574		0.862
Uncertainty about changes in competitor's price	0.441		0.868
Uncertainty about change in competitor's market	0.631		0.859
Uncertainty about change in competitor's product mix and advertising strategy	0.592		0.861
Uncertainty about number of competitor's and rivalry intensity	0.715		0.856
Uncertainty about changes in sales promotion by competitors	0.412		0.869
Uncertainty about entry of new firms in the market	0.513		0.865
Uncertainty about demand and proper forecasting	0.535		0.864
Uncertainty about availability of substitute product	0.556		0.863
Uncertainty about availability of complementary product	0.435		0.868
Uncertainty about time-to-market	0.352		0.871
Uncertainty about investment for advertising/marketing	0.325		0.872
Uncertainty about setting market domain	0.442		0.868

TABLE II
TOTAL VARIANCE EXPLAINED FOR THE INSTRUMENT

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	5.625	35.155	35.155
2	1.718	10.738	45.893
3	1.586	9.913	55.805
4	1.147	7.166	62.972
5	1.029	6.433	69.405
6	0.846	5.289	74.694
7	0.651	4.07	78.764
8	0.602	3.764	82.528
9	0.571	3.568	86.096
10	0.489	3.054	89.15
11	0.423	2.644	91.794
12	0.352	2.201	93.996
13	0.31	1.938	95.934
14	0.264	1.653	97.586
15	0.215	1.341	98.927
16	0.172	1.073	100

The most crucial decision lies in determining the numbers of factors to be retained. Exploratory factor analysis is extensively used for development of measures. The common method used for factor retention criterion is the Eigen value-greater-than-one-rule [45], [46]. This method often leads to extraction of non-optimal number of factors [45]. Using this rule over extraction of factors that results in splitting the factors, diffusion of variables across a huge factor space, few factors with high loadings and researchers excessive focus on trivial factors [45]-[48] and under extraction of factors results in compressing variables in a smaller factor space, significant information loss, Fusion of two or more factors in a distorted manner, and negligence of important factors [55]. Some of the researchers also use scree plots of Eigen value for determining the number of factors to retain but it has been observed that even among the specialists, the reliability of interpretation of the scree plot is low [45], [49], [50]. Scree plot involves sharp examination of plots for identifying the difference between the eigenvalues for major factors and trivial factors [45]. The slope from lower to higher eigenvalues in Scree plots involves complications like almost invisible break point or more than one breakpoint is present in the line [46], [47]. Limitations of these methods lead researchers to consider an alternative factor retention method.

The alternative factor retention criteria as proposed by [51], 'adapts the population based Eigen-Value-Greater-Than 1 rule to samples' [46]. This alternative criterion is known as Parallel Analysis (PA). This method compares the Eigen value extracted from a randomly generated correlation matrix with that of the eigenvalues extracted from the real dataset of the researcher. Both (PA method and the Eigen value-greater-than-one method) have same sample size and variable number. Using PA the factor or component are retained till the kth eigenvalues from the randomly generated dataset is smaller than the kth eigenvalues of the real dataset. PA is found to be the most accurate criteria than other methods for factor retention [45], [46], [47]. Therefore, for determining the number of factors to retention in this paper, we use this 'computationally intensive procedure' [45], parallel analysis.

TABLE III
PARALLEL ANALYSIS (RANDOMLY GENERATED EIGEN VALUE VS REAL DATASET EIGEN VALUE)

Root	Means	Eigen value from the randomly generated dataset	Eigen value from the real dataset
1	1.413668	1.506332	5.625
2	1.321115	1.381113	1.718
3	1.257383	1.30636	1.586
4	1.201068	1.244887	1.147
5	1.147127	1.183628	1.029
6	1.097681	1.132702	0.846
7	1.051404	1.086238	0.651
8	1.007167	1.041052	0.602
9	0.966696	1.002082	0.571
10	0.922031	0.963078	0.489
11	0.879837	0.916605	0.423
12	0.841867	0.881625	0.352
13	0.796518	0.832151	0.31
14	0.750371	0.785941	0.264
15	0.703986	0.741739	0.215
16	0.642081	0.699086	0.172

In Table III, the 2nd column indicates for a particular root, the value of the mean of 100 eigenvalues, the 3rd column indicates for a particular root, the value of the 95th percentile of 100 eigenvalues. It can be observed from Table III that the eigenvalue for the 4th root of the actual data (1.147) is smaller than eigenvalue of the 4th root of the random data (1.244). Therefore, only three factors are retained [45], [46] for further

World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:9, No:5, 2015

analysis. Compared to parallel analysis we force a 3 factor model in exploratory factor analysis.

Compared to parallel analysis we force a 3 factor model in EFA and check the communality values for each variable that should be 0.50 or higher explaining at least half of each original variable's variance [52]. Finally the communality values for the variables less than 0.50 were removed on subsequent iteration to obtaining the results of communalities >.5. Then the final factor structure for market uncertainty was obtained from exploratory factor analysis (EFA).

Our Next approach is to check the communality value for each variable. Extraction communalities represent the proportion of the variance in the original variables that is accounted for by the factor solution. The communality value for each variable should be 0.50 or higher explaining at least half of each original variable's variance [52]. Simply we can say communality explains how well the variables fit with the factor solution. On obtaining the communality value for all the variables, the value for variables MU1 (Uncertainty about demand and proper forecasting), CU1 (Uncertainty about user requirements and preferences), CM1 (Uncertainty about changes in competitor's price), CM5 (Uncertainty about changes in sales promotion by competitors) and CM6 (Uncertainty about entry of new firms in the market) shows value lesser than 0.50 and is therefore removed from further analysis. On removing the variables with communality value lesser than 0.5, we obtain the communality value for the rest of the eleven variables higher than 0.50. Table IV shows the communality value for the eleven variables.

TABLE IV
COMMUNALITY VALUE FOR THE VARIABLES OF MARKET UNCERTAINTY CONSTRUCT

Variables of Market Uncertainty construct	Communality Values
Uncertainty about availability of substitute product	0.71
Uncertainty about availability of complementary product	0.816
Uncertainty about time-to-market	0.679
Uncertainty about investment for advertising/marketing	0.619
Uncertainty about setting market domain	0.566
Uncertainty about recognition of product value by customer	0.649
Uncertainty about recognition of product utility by customer	0.757
Uncertainty about relationship with customer	0.633
Uncertainty about change in competitor's market	0.671
Uncertainty about change in competitor's product mix and advertising strategy	0.543
Uncertainty about number of competitor's and rivalry intensity	0.628

The key premises of our research lie on determining the factors for market uncertainty. We performed a factor analysis with Varimax rotation. The initial results of factor analysis showed a complex structure of variable 'Uncertainty about change in competitor's product mix and advertising strategy'. Complex structure occurs when one variable has high loadings or correlations (0.40 or greater) on more than one component. If a variable has complex structure, it should be removed from the analyses' (www.utexas.edu). Therefore, on removing the variable with complex structure on the 2nd iteration, we

proceed for factor analysis to obtain the factor structure for market uncertainty (Table V).

TABLE V
FACTOR ANALYSIS WITH VARIMAX ROTATION

Items under Market Uncertainty Construct	Factor Loadings		
	F1	F2	F3
Uncertainty about availability of substitute product	0.824		
Uncertainty about availability of complementary product	0.903		
Uncertainty about change in competitor's market	0.724		
Uncertainty about number of competitor's and rivalry intensity	0.612		
Uncertainty about recognition of product value by customer		0.754	
Uncertainty about recognition of product utility by customer		0.865	
Uncertainty about relationship with customer		0.75	
Uncertainty about time-to-market			0.822
Uncertainty about investment for advertising/marketing			0.743
Uncertainty about setting market domain			0.669
Percentage Variance Explained	37.95	14.5	13.64

Factor 1 in Table V includes the variables 'Uncertainty about availability of substitute product', 'Uncertainty about availability of complementary product', 'Uncertainty about change in competitor's market' and 'Uncertainty about number of competitor's and rivalry intensity' We substitute one component variable for this combination of variables: 'Uncertainty of industry orientation'.

This factor can be explained using Porter's five force model [10]. This model analyzes industry structure taking into account all the elements of a value chain for competitive analysis of the industry [53]. Industry orientation therefore involves analysis of nature and degree of competition that a firm may potentially face. Therefore, uncertainty in industry orientation of a firm will withheld it from analyzing the possible threat from new entrants, resulting in loss of market share. Also a firm with uncertainty in industry orientation misses the opportunity of determining the threat of substitute product in the market, lowering the demand and possible price of its own product in the market. Intense rivalry among the existing competitors in the market cannot be mapped by a firm when there is an uncertainty in industry orientation within the firm. This would make the firm unable to predicting the competitors next action related to product pricing, advertising campaigns and new product introduction, hindering the firm from gaining competitive analysis.

Factor 2 in Table V includes the variables "Uncertainty about recognition of product value by customer", "Uncertainty about recognition of product utility by customer" and "Uncertainty about relationship with customer". We substitute one component variable for this combination of variables: 'Uncertainty of customer orientation'.

Customer orientation plays a major role in market dynamics and is highly accountable for innovative characteristics of a firm. As posited by [39], firms that are customer-focused, engage themselves in continuous innovation. Firms possessing 'customer-focused culture' assist innovation both in

World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:9, No:5, 2015

administrative and technical areas with long term 'forward-looking orientation', encountering more innovativeness compared to firms with less customer focus [54]. Small and start-up firms lacks in strategic orientation, focused and systematic decision making capability, making customer orientation as an important determinant of performance [55]. Therefore, uncertainty of customer orientation hinders a firm's innovative capability and the firm's systemic decision making tactics and capabilities. Small or start-up firms when adopting low customer focus, affects its performance level as customer orientation is one of their key success criteria for the firms [54]. Firm's facing customer uncertainty therefore misses the opportunity to understand the customer requirements, resulting in product failure of the firm.

Factor 3 in Table V includes the variables "Uncertainty about time-to-market", "Uncertainty about investment for advertising/marketing" and "uncertainty about setting market domain". We substitute one component variable for this combination of variables: 'Uncertainty of marketing orientation'

Marketing orientation is conceptualized as a firm's behavior or attitude [56]. Felton [57] described market orientation as a thought process for pursuing business that involves integration and co-ordination of all activities of marketing; this in turn provides long term profitability. A marketing oriented company's priority is its customers i.e. satisfying the customer's needs and wants. Priority of customers comes into action when the firm evaluates its product and the performance of the company [55]. Therefore, uncertainty in marketing orientation of a firm would hinder it from developing and modifying products according to the requirement and demands of the market, resulting in low or no customer satisfaction. According to [39], a marketing oriented firm's priority is gathering, disseminating and responding to the market intelligence. Therefore, when there is an uncertainty in marketing orientation of a firm, it becomes tough for the firm to predict the niche market, customer requirement, competitor's activities, market demands and also set and appropriate strategy to response the market demands and other sources creating an obstacle for product development and launching. This hinders a firm's ability to achieve perform level because the firm becomes unable to gain competitive advantage.

VI. Conclusion

Market uncertainty is conceptualized as perceived unpredictability of the change in the market environment of a firm, its effect on the future state of a firm and related indecisiveness about the response options. Three factors obtained clearly indicate uncertainty in three orientations. In market related uncertainty it is obvious, to capture customer and market dimensions, which are contributor to marketing concepts. The first factor i.e. uncertainty in industry orientation identifies a higher order strategic orientation, generally discussed in firm's product-market strategy with much abstraction than functional level strategy like marketing. Hence, the paper contributes mainly in considering (or rethinking) your product- market positioning vis-à-vis your competitive scenario while considering the marketing decisions. The marketing inputs and related decisions without corresponding competitive positioning may direct to failures and incomplete decisions.

References

[1] McMullen, J. S., & Shepherd, D. A. Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. *Academy of Management Review*, 2006.31(1): 132–152,

[2] Ghosh, S., Bhowmick, B., & Guin, K. K. Perceived Environmental Uncertainty for Startups: A Note on Entrepreneurship Research from an Indian Perspective. *Technology Innovation Management Review*, 2014.4(8): 27–35,

[3] Duncan, R. B. Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly*, 197217:313-327

[4] Casson, M,. The Entrepreneur: An Economic Theory, 2nd ed. Martin Robertson, Oxford.1982

[5] Milliken, J. F., Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *Academy of Management Review*, 1987.Vol.12, 133–143,

[6] Miles, R. E., and Snow, C. C. Organizational strategy, structure, and process. New York: McGraw-Hill1978.

[7] Song, M. X. and Montoya-Weiss M. The effect of perceived technological uncertainty on Japanese new product development. *Academy of Management*, 2001.Vol. 44(1), 6.1-80.

[8] Matthews, C. H., & Scott, S. G. Uncertainty and Planning in Small and Entrepreneurial Firms: An Empirical Assessment. *Journal of Small Business Management*, 1995.33(4): 34.

[9] Starbuck, W. H. Organizations and their environments. In M. Dunnette (Ed.), Handbook of industrial and organizational Chicago: Rand McNally: 1069-1124.1976.

[10] Porter, M.E., How competitive forces shape strategy. *Harvard Business review*, 1979.57(2), 137-145

[11] Xu, F., & Wang, C., New Product Development, Strategy Crafting, and the Performance of Entrepreneurial Firms, *International Conference on E-Business and E-Government.* 2010.

[12] Lumpkin, G. T., and Dess, G.G. Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review*, 1996.21(1):135–172.

[13] Pelham A. M., and Wilson, D. T., Longitudinal study of the impact of market structure, firm structure, strategy and market orientation culture on dimensions of small-firm performance, *journal of the Academy of Marketing Science*, 1996.24(1),27-43.

[14] Abernathy, W. J., & Clark, K. B. Innovation: Mapping the winds of creative destruction. *Research Policy* 1985, 14: 3–22.

[15] Zirger, B. J. & Maidique M. A. A model of new product development: an empirical test', *Management Science*, 1990. vol.36, p. 867-883

[16] Slovik, P., Market uncertainty and market instability, IFC Bulletin No 34,2011

[17] Chen, J., Reilly, R. R, and Lynn, S. G., The Impacts of Speed-to-Market on New Product Success: The Moderating Effects of Uncertainty, *IEEE Transactions on Engineering Management*, 2005.vol. 52(2)

[18] Leifer, R. and Mills, K. P., An information processing approach for deciding upon control strategies and reducing control loss in emerging organizations. *Journal of Management*, 1996.Vol. 22: 113-137

[19] Daft, R.L. Organization Theory & Design, Fifth Edition. New York: West. 1995

[20] Jaworski, B. J. and Kohli, K. A. Market Orientation: Antecedents and Consequences, *Journal of Marketing*, 1993.57, 53-70.

World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:9, No:5, 2015

[21] Moriarty, R. T. and Kosnik, T. J., High-tech marketing: Concepts, continuity, and change, *IEE Engineering Management Review*, 1990,25–35.

[22] Slovik, P., Market uncertainty and market instability, IFC Bulletin No.34, 2011

[23] Zhou, Kevin Z., David K. Tse, and Li J. J. Organizational Changes in Emerging Economies: Drivers and Consequences," *Journal of International Business Studies*, 2006.Vol.37, pp. 248–63.

[24] Deshpande, R., and Farley U. J., and Webster Jr. E. F. Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrad Analysis, *Journal of Marketing*, 1993.57, 23-27.

[25] Lawton, L., and Parasuraman A. The Impact of the Marketing Concept on New Product Planning, *Journal of Marketing*, 1980.44,19-25.

[26] Pierce J.L. and A.L. Delbecq. Organizational Structure, Individual Attitudes, and Innovation, *Academy of Management Review*, 1977. 2, 26-37.

[27] Han, K.J., Kim, N., and Srivastava, K. R. Market Orientation and Organizational Performance: Is Innovation a Missing Link? *Journal of Marketing*, 1998.Vol.62, 30-45.

[28] Kohli, K.A., and Jawaroski, J. B., Market orientation: The Construct , Research Propositions and Managerial Implications, *Journal of Marketing*, 1990.54, 1-18.

[29] Day, G. S. and Wensley, R. Assessing Advantage: A Framework for Diagnostic Competitive Superiority, *Journal of Marketing*, 1988,52, 1-20.

[30] Slater, S. F. and Narver C. J., Market Orientation, Customer Value, and Superior Performance, *Business Horizons*, 1994b.37, 22-28.

[31] Dong, M. C., Y., Tse, D. K., and Cavusgil, S. T. Efficiency of Governance Mechanisms in China's Distribution Channels, *International Business Review*, 2008.Vol.17, pp.509–519.

[32] Lau, C. M., Tse, K. D. and Zhou, N. Institutional Forces and Organizational Culture in China: Effects on Change Schemas, Firm Commitment and Job Satisfaction, *Journal of International Business Studies*, 2002.Vol. 33(3), pp.533–50.

[33] Makino, S., C.M. Lau, and R.S. Yeh , Asset-Exploitation Versus Asset-Seeking: Implications for Location Choice of Foreign Direct Investment from Newly Industrialized Economies, *Journal of International Business Studies*, Vol.33(3), pp. 403–4212002

[34] Buchko, A. A. Conceptualization and Measurement of Environmental Uncertainty: An Assessment of the Miles and Snow Perceived Environmental Uncertainty Scale. *The Academy of Management Journal*, 1994.37(2), 410 425.

[35] Downey, H. K., & Slocum, J. W. Uncertainty: Measures, research and sources of variation. *Academy of Management Journal*, 1975.18, 562-578,

[36] Krause, D.R., The antecedents of buying firms' efforts to improve suppliers, *Journal of Operations Management*. 1999.17 (2), 205–224.

[37] Lawrence, R. P. and Lorsch, W. J. Organization and Environments. Cambridge, MA: Harvard University Press,1967

[38] Gerloff, A. E., Muir, K. N., and Bodensteiner D. W., Three Components of Perceived Environmental Uncertainty: An Exploratory Analysis of the Effects of Aggregation, *Journal of Management*, 1991. 17(4), 749-768

[39] Miller, D. K., Industry and Country Effects on Manager's Perceptions of Environmental Uncertainties, *Journal of International Business Studies*, 1993.Fourth Quarter

[40] Jackson, S. E., Schuler S. R., and Vredenburg, J. D., Managing stress in turbulent times. In Anne W. Riley & Stephen J. Zaccaro, editors, Occupational stress and organizational effectiveness, 141-66; New York: Praeger.1987,

[41] Peng, M. W. The Resource-Based View and International Business. *Journal of Management*, 2001. 27(6): 803–829.

[42] Child, J. and Tse DK., China's transition and its impact on international business. *Journal of International Business Study*, 2001.32(1),8-21

[43] Anastasiadou, D. S., Reliability and validity testing of a New scale for measuring attitudes toward learning statistics with technology. *Acta Didactica Napocensia*, 2011.Vol.4, No.1, :1-10

[44] Anastasiadou, D. S., Factorial validity evaluation of a measurement through principal components analysis and implicative statistical analysis. In Xatzidimou, D.X., Mpikos, K., Stravakou, P.A., & Xatzidimou K.D. (eds), 5th Hellenic Conference of Pedagogy Company, Thessaloniki: 341-348.2006.

[45] O'Connor P.B. SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instruments, & Computers*. 2000.32 (3): 396-402

[46] Patil, H. V., Singh, N. S., Mishra, S., and Donavan D. T., Efficient theory development and factor retention criteria: Abandon the 'Eigen value greater than one' criterion. *Journal of Business Research*. 2008. 61: 162–170

[47] Zwick, W. R., & Velicer, W. F., Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*, 1986, 99:432-442.

[48] Wood, M. J., Tataryn, J. D., and Gorsuch, L. R., Effects of under- and over extraction on principal axis factor analysis with varimax rotation, *Psychological Methods*, 1996, Vol.1, 354-365

[49] Crawford, C. B., & Koopman, P. Inter-rater reliability of scree test and mean square ratio test of number of factors. *Perceptual & Motor Skills*, 1979. 49: 223-226.

[50] Streiner, D. L. Factors affecting reliability of interpretations of scree plots. *Psychological Reports*, 1998.83: 687-694.

[51] Horn, J. L. A rationale and test for the number of factors in factor analysis. *Psychometrika*. 1965. 30: 179-185.

[52] Hair, F. J., Black, C. W., Badin, N. J., Anderson, E. R., & Tatham, R. L. Multivariate Data Analysis. New Joursey, Pearson Education Inc., Chapter 3, 2005.

[53] Beckham, W. H., Competitive Strategy, *Researcher Starters-Academic Topic Overview* .2013.

[54] Han, K. J., Kim, N., and Srivastava, K. R. Market Orientation and Organizational Performance: Is Innovation a Missing Link? *Journal of Marketing*, 1998. Vol.62, 30-45

[55] Sexton, D L., and Van Auken P. A. Longitudinal study of Small business Strategic Planning. *Journal of small Business Management*. 1985. 23, 7-15

[56] Avlonitis, J. G., and Gounaris, P. S., Marketing orientation and its determinants: an empirical analysis. *European Journal of Marketing*, 1999. Vol.33 (11/12).1003-1037

[57] Felton, A., Making the marketing concept work, *Harvard Business Review*, 1959. Vol. 37(4), 55-56