

BALANCED SCORECARD FOR ENTREPRENEURIAL STRATEGIC MARKETING IN COLOMBIA

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ABSTRACT

The article formulates a Balanced Scorecard (BSC) based upon research outcomes. It enables knowledge centric entrepreneurs in Colombia to implement strategic Marketing practices. The research project explores entrepreneur's marketing rationale through fieldwork and data analysis. Marketing rationale was defined within knowledge management and consumer behavior theory based on the three elements of the Wheel of Consumer Analysis framework (WCA): 1.Environment: Knowledge acquired from the outside, 2.Affective and Cognitive: Specialized training and procedures, formal and non-formal education obtained thorough technical instruction, competences implemented and experienced as routines and finally. 3. Behavior: transferring that knowledge across business areas and embed it the final product. Factor analysis helped establish equivalences between hypotheses and strategies by relating latent variables derived from the correlation of WCA elements to unravel underlying assumptions based on local idiosyncrasies to interpret those latent variables. Strategic mapping for technology based entrepreneurs identified customer benefit as the common thread to manage business tensions created by the need to obtain growth and profitability at the same time.

JEL: M14; M16

KEYWORDS: Balanced Scorecard, Marketing Strategy, Marketing Education

INTRODUCTION

This paper proposes a Balanced score card as educational interface at the National Learning Service System (SENA). The goal is to increase knowledge for Colombians. We consider the study of marketing rationale as the process by which an entrepreneur interprets the environment in order to survive and compete by engaging in strategic options. The theoretical framework used to interpret the entrepreneur's Marketing rationale as a consumer's perception was the Wheel of Consumer Analysis (WCA). WCA is often used to analyze market segments, industries and individual consumers. Hypothesis testing provided guidance throughout the research process and more specifically during its initial stages by testing the adaptability of (WCA) to entrepreneurs as opposed to ultimate consumers. In later stages of the research, the establishment of equivalences between hypotheses and strategies helped the undertaking. It strengthened business consolidating activities committed to foster an entrepreneurial culture that is triggered to innovate and competition within an organizational learning framework.

In 1957, an integrated effort from organized workers, Entrepreneurs, The Catholic Church and The International Labor Organization lead to the creation of SENA, the National Learning Service System. It is a public establishment with an independent legal persona, patrimony and management structure. It is adhered to the Social Protection Department of the Republic of Colombia. SENA provides integrated education tailored to incorporate people in productive activities contributing to social and economic growth through technological development. It fulfills the government's technical and social intervention function to the worker's community through 116 education centers countrywide and involving 1,098

country municipalities (The Inter-American Centre for Knowledge Development in Vocational Training, 2011).

By December 2006, a total of 4,148,809 students attended SENA's education centers. Some 433,885 of those attendees pursued a formal degree and 3,714,924 pursued continuing education. Combined, they utilized 12,750,278 hours of class time. By comparing these results with SENA's 2002 statistics a student training coverage increment of 263% is observed (SENA, 2011a).

Between 2002 and 2006, once a thorough priority exercise had been performed, a (2007-2010) Strategic Plan called Knowledge for Colombians was formulated. The strategic plan included SENA's most relevant concerns including: its orientation, organizational structure, management performance, situational analysis, restraints and outcome appraisal. As a timely reaction to public and private demands from different industries, educational institutions and society in general, this Plan emphasized the impact of its education programs to productivity and country competitiveness according to the company's long-term vision of providing the latest learning methods, meeting equity between the worker's need and Business World Demand.

Among SENA's core strategies included in the 2002 strategic plan, were the strengthening and undertaking of business consolidation activities committed to fostering an entrepreneurial culture triggered to innovate and compete. Both actions were necessary to ultimately achieve the goal of knowledge based business communities constituting 800 operating businesses, 10% of which were actively selling overseas by 2006. According to objectives set out by SNICE (National Business Creation & Incubation Association), in Colombia, orchestrated efforts made by public and private entities seek to generate thinking in terms of self-reinforcing "value cycles" rather than linear value chains (Vargo & Lush, 2004). In the service-centered view of marketing entrepreneurial education, firms should be in a process of continuous hypothesis generation and testing between Incubators and Universities to contribute to Value Chain Development. By this process business creation will meet the challenges of our time (SENA, 2011 b).

Balanced score card (BSC) was created by Robert Kaplan and David Norton in 1992. It was applied primarily to for profit organizations in Europe and USA. It works as a control board in a race car, used by pilots to supervise the conditions of the car while simultaneously responding strategically to other competitor's move in the racetrack. BSC is an integrated system because it employs every business perspective. Each perspective is indispensable to visualize the firm as a whole. It is a balanced system because it is essential for the strategy to be coherent and balanced with the group of indicators, whether they are financial, non-financial or obtained as a result from processes. It's strategic because the objectives are related and in that way strategy is translated into a cause and effect map.

The main purpose of the BSC tool is not simply developing a group of indicators. Even though indicators help describe a project's goals, results provide the link that evaluates personnel for successful strategy attainment. The potential use of an indicator structure must pursue the creation of an integrated management system. Kaplan and Norton (2000: 283) said, "Indicator structures should only be the means to obtain a greater goal: a strategic management system that helps executives to implement an instrument to obtain feedback from the performance of the strategy.

In summary, SENA earned its place in the Colombian Society by benchmarking the industry thanks to audacious strategic moves and the ability to evolve with time. Currently, Industries have not only settled expectations and demands for traditional continuing education, but solid research outcome applications to provide specific solutions in various technical fields. *Strategic Marketing interfaces such as BSC need to be created for the challenges of our time, based upon existing entrepreneur's. Marketing rationale and cultural background is a starting point for knowledge centric administration.* The above researcher's

Working Hypothesis adds to the existing body of the literature, since it considers the need to develop a tool that eases the implementation of a “sense and response” rather than a “make and sell” (Kotler, 2006) philosophy. It contributes to a more accurate strategic planning since it encompasses information from the customer value co creation process, small business owner’s marketing rationale and financial objectives. It manages business tension generated by the need to obtain growth and profitability that in turn enhances the quality provided by entrepreneur oriented education institutions.

The remainder of the paper is organized as follows: The literature review section briefly discusses the relevant literature. It seeks to establish relationships between the entrepreneur’s idiosyncrasy and organizational learning. The data selection and research methodology section lays out a research strategy oriented to achieve efficiency and effectiveness. Factor analysis served as a foundation to formulate a Balanced Scorecard based on a dynamic hypotheses generation scenario. The empirical results helped in the contextualizing the research problem based on local idiosyncrasies and provides analysis and interpretations of the findings. In the conclusion section, a BSC tool formulates a structure to balance organizational tensions derived from the need to seek business growth and profitability both of which apparently pursue opposing objectives. If the common and inherent thread in a tension is ignored, good performance for one business objective will inevitably lead to poor performance for the other. On the other hand if the common thread is strengthened, both objectives can be achieved at the same time. Customer benefit: is the common thread between profitability and growth. It is the reward costumers receive after experiencing a product or a service. Remember the word customer is used in two ways: one is the entrepreneur who pays to receive business education at SENA. If entrepreneurs attend good quality and meaningful marketing training sessions they will be happy publicize SENA’s role to new entrepreneurs by word of mouth advertising. Aggressive persuasion will not be necessary to keep classrooms busy. Second use of the word consumer is the ultimate consumer who buys from the entrepreneur. Those customers want to demand quality and feel important.

LITERATURE REVIEW

In Colombia, Entrepreneur’s creativity for survival is synonymous with innovation. It occurs in response to an excess of society’s individualism and lack of collective consciousness that impedes the reach of collective agreements. Thus, social agreements achieve maximum individual benefit at the expense of collective wellness (Gomez, 1999). In other words, Colombia accounts for a remarkable individual creativeness married to an equally remarkable social indiscipline. That scenario offers various advantages such as individual creativity and a great social mobility that allows coexistence of an enormous regional diversity and plurality. Collectively these traits impede the rise of a dictatorship. In contrast, complexity to achieve mutual objectives brings the appearance of patronizing systems, corruption and drug trafficking among other consequences.

It’s true that entrepreneur’s excessive individualism has an effect on teamwork efficiency. Pereira (2003, as cited in Gómez, 1999) note; “A Japanese professor in Colombia used to say: Colombians are smarter than Japanese, but two Japanese can do we work of many Colombians”. However, based upon Global Competitiveness Report (Schwab & Porter, 2008) on the Colombian competitive position chapter, it is clear that quality of management performance is within Latin-American standards (74th position in the world rank).

According to Baumol (1968), Entrepreneur’s management performance implies a resourceful attitude and customized marketing implementations. Limited capital and availability of bank loans for startups are two major factors that compel entrepreneurs to innovate. Innovation is a means to attain resources. On the other hand, entrepreneurs make additional efforts, aside from those necessary to maintain core business operations, in reaction to discontinuous production mechanisms at connected industries (Leibenstein, 1968).

Porter (96) describes the basis of strategy as the set of activities that an organization decides to highlight: "In the end, all the differences in cost or price between firms are derived from the hundreds of activities required to create, produce, sell and deliver their products or services ... differentiation comes from the type of activities that are chosen and the manner in which they are carried out".

The essence of strategic thinking is based upon decisions to perform business activities in a manner different from competitors bringing a unique value proposition in return. In Porter's opinion a sustainable strategic position comes from a system of activities, each of which reinforces the other. The Balanced Scorecard - a descriptive rather than a prescriptive framework, - shares a similar overview with that of Porter's about the meaning of strategy although it has been developed outside of his framework. The Balanced Scorecard's creation process is based upon on the premise of "strategy as a hypothesis". The strategy involves moving an organization from its current position to a future desirable but uncertain one. Given that the organization has never been in this future position, entrepreneurs should establish a series of relationships between hypotheses. The Balanced Scorecard allows you to describe strategic scenarios as a set of cause and effect relationships that are explicit in nature and can be tested over time. In addition, those strategic scenarios require separate activities acting as causes for either anticipated or overdue indicators of desired results. The key to implementing the strategy is to make all people in the organization understand the underlying assumptions, align resources with hypotheses, test the hypothesis and continuously adapt to the requirements of real time.

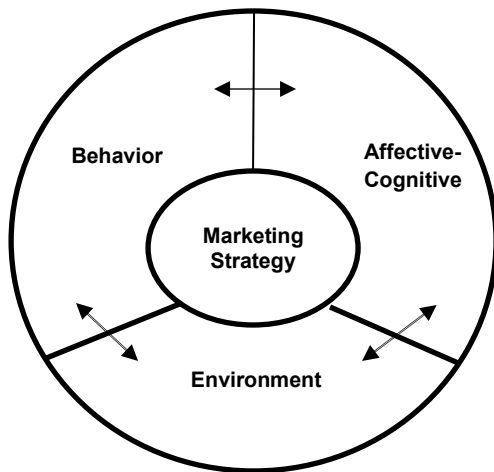
Marketing science seldom places an interest on individual idiosyncratic perceptions. Rather it seeks to reach consensus of various consumers about the perceived environment. The environment can influence affective-cognitive responses and behavior (Peter & Olson, 2008). For example, an individual can react to a new store layout and decide what type of behavior will lead to purchase objectives.

Marketing analysts are interested to know how the consumer perceived the environment, sometimes called functional environment or perceived environment. Since every consumer has his or her own belief system, the perceived environment will be different for every consumer (Peter & Olson, 2008. pag 256). Perceived customer's value is the apparent difference between the sums of advantages minus costs form a product offering compared to others (Kotler & Keller 2006, pag 141).

From the entrepreneur's viewpoint, a marketing strategy is a conjoint of artificial stimuli applied to a consumer's environment designed to produce an effect on the affective-cognitive system and its behavior. Marketing strategies influence not only consumers but entrepreneurs as well. The three elements to be explored to develop effective marketing strategies are: (1) Consumer's affective-cognitive system, the affective system means the effect of the environment on feelings and emotions, such as either acceptance or rejection towards products. The cognitive system refers to thoughts such as beliefs towards particular products. (2) Consumer's behavior refers to the ability to observe and measure consumer's physical actions. For example, behaviors can be retail, internet shopping or credit card usage. (3) Consumer's environment refers to externalities that ultimately influence what they think, feel and do. This includes social stimuli in a culture, subculture, reference groups and families that influence consumer. Peter *et al.* (2008, 25) says; "Elements are connected one another by a two way arrow, called reciprocal system, meaning that an alteration on anyone of the elements can be the cause or effect of the alteration in one or more of the others" (p.25). Constantin and Lush (1994) define operand resources as resources on which an operation or act is performed to produce an effect, and they compare operand resources with operant resources, which are employed to act on operand resources (and other operant resources). A goods-centered dominant logic considers operand resources primary. A firm (or nation) had factors of production (largely operand resources) and a technology (an operant resource), which had value to the extent that the firm could convert its operand resources into outputs at a low cost. Service-centered dominant logic perceives operant resources as primary, because they are the producers of effects. This

shift in the primacy of resources has implications for how exchange processes, markets, and customers are perceived and approached. (See Figure 1)

Figure 1: The Wheel of Consumer Analysis (WCA)



Marketing strategy involves designing, execution and control of a plan to influence exchanges leading to achieve organizational objectives. Entrepreneurs are used to designing marketing strategies to increase the probability that consumers have thoughts and favorable feelings toward products, services and specific brands; testing them and repeat purchase. Olson and Peter (2005)

The accelerating pace of changes in operational environments of business organizations has created an increasing need to find adequate ways to adapt with continuously changing situations. The ability to learn is seen as a major source to stay competitive in a changing environment. Stata (1989) argues that the rate at which individuals and organizations learn may become the only sustainable competitive advantage, especially in knowledge-intensive industries. Garvin (1993) points out that in the absence of learning, companies and individuals simply repeat old practices. Therefore, the increasing need for learning has raised interest in learning theories. Beach (1980) describes learning as "the human process by which skills, knowledge, habit and attitudes are acquired and altered in such a way that behavior is modified". According to Schein (1993), learning is not a unitary concept, there are at least three distinctly different kinds of learning that require different time horizons and that may apply to different stages of an organizational change process: knowledge acquisition and insight, habit and skill learning, emotional conditioning and learned anxiety.

Kim (1993) differentiates two meanings of learning: the acquisition of skill or know-how, which implies the physical ability to produce some action, and the acquisition of know-why, which implies the ability to relate conceptual understanding and experience. Probst and Büchel (1997) write that organizational learning is unique to an institution, creating a culture around knowledge management. Table 1 presents a smooth transition from the different types of organizational learning and its processes to a reciprocal system created by the interaction between WCA elements. (Rheem, 1995).

Two relevant definitions for the context of this application are: "Technology based firm". Meaning knowledge centric business focused on acquiring new knowledge, from the environment, integrating it with the business, transferring it, sharing it, and ultimately selling it embedded in the product. Secondly, Marketing Rationale. Meaning the process used to determine what products or services might be of interest to customers, and the strategy to use in sales communications and business development. It generates a strategy that underlies sales techniques, business communication, and business development. Companies build strong customer relationships and create value for their customers and for themselves through an integrated process. Kotler *et al.* (2006).

Table 1: Relationship between WCA Reciprocal System and Organizational Learning

Organizational learning types	Process of organizational learning Probst <i>et al.</i> (1997, 24)	WCA Reciprocal system
Competency acquisition to cultivate new capabilities in either teams or individuals	Change in organizational knowledge	Environment-Affective & Cognitive system
Experimentation to try out new ideas	Increase in the range of possible actions	Behavior- Environment
Continuous improvement to master each step in a process before moving to the next	Change in organizational knowledge	Behavior- Affective & Cognitive system
Boundary spanning to scan other companies efforts, by benchmarking their progress against competitor's and by pursuing information from sources outside the organization	Change intersubjective constructions of reality	Affective & Cognitive system- Environment

Knowledge entrepreneurship describes the ability to recognize or create an opportunity and take action aimed at realizing the innovative knowledge practice or product. Knowledge entrepreneurship is different from 'traditional' economic entrepreneurship in that it does not aim at the realization of monetary profit, but focuses on opportunities with the goal to improve the production (research) and throughput of knowledge (as in personal transformation (Harvey & Knight, 1996)), rather than to maximize monetary profit. It has been argued that knowledge entrepreneurship is the most suitable form of entrepreneurship for not-for-profit educators, researchers and educational institutions.

DATA AND METHODOLOGY

On May 2011, students in a Marketing Research course conducted a survey questionnaires on 311 small to medium sized business based upon "technology based entrepreneur" profiling. Exploratory factor analysis was performed as a guidance to set out some initial working hypotheses and measure the quality of the data retrieved. Once surveys had been sorted in the classroom, research objectives were reviewed and sample validity and subject homogeneity assured. Descriptive analysis showed a distribution of 5.6% from the distribution sector, 22.4% manufacturing, 21.4% commercial, 29.9% consulting and 7.4% others. Some 146 surveys were selected out of the 311 to run a confirmatory factor analysis to determine correlational hypotheses between factor loadings within every measure and formulate a marketing mix derived from the latent variables.

Primary data was collected through a survey tailored to measure WCA elements using variables addressing repeated behavior attitudes and perceptions. We used semantic scale questions i.e. 1= totally disagree, 10= totally agree. Secondary data was collected form academic databases and textbooks explaining the relationship between consumer behavior, product/service marketing strategy, knowledge centric entrepreneurship and Balanced Scorecard implementation according to the above literature review. The theoretical framework identified a set of marketing variables resembling what the entrepreneur thinks, feels and does. In other words, the measures reflect the nature of the variable pointing causality from construct to measures. Thus the group of measures was correlated and interchangeable, so that if one measure was dropped the nature of the latent construct did not change. Questions resembled an established set of marketing variables, hence variables belonging to relative measures could be represented as a reflective construct (i.e. *Product* can include measures such as product expectations, product contact, or product benefit). Notice in Table 2 how each of these measures seems to be saying the same thing. We expect them to be highly correlated so that removing one would not change the construct nature, reflective measures reflect the nature of the latent construct. By contrast, formative measures form the nature of the latent construct. Since the project is oriented to close the gap between theory and reality, correlation analysis provided the non-identity matrix needed to interpret entrepreneurs' marketing rationale allowing principal components to pop up and therefore unraveling a cultural based marketing mix.

The data arrangement set out 21 ordinal variables. In order to perform Principal Component Factor Analysis (PCA), to derive a relatively small number of latent variables, we obtained the correlation matrix to examine variable correspondence (De Coster, 1998). Since we want the final model to account for as much of the covariance in our data with as few factors as possible, we identified latent variables by using a number of factors equal to the number of the eigenvalues of the correlation matrix greater than 1. The

resulting variables will contain both common and unique variance. Latent variable interpretation using orthogonal Varimax factor rotation explained linear relations between latent variables and each of the factors. The strength of this relationship is contained in the respective factor loadings, produced by rotation. This loading can be interpreted as a standardized regression coefficient, regressing the factor on the latent variables. We defined Entrepreneur’s Marketing variables by considering the possible theoretical constructs that could be responsible for the observed pattern of positive and negative loadings belonging to each factor.

$$F = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 \dots \dots + W_{iK}X_k \tag{1}$$

Table 2: The Wheel of Consumer Analysis and the Extended Marketing Mix

	Environment	Affective-Cognitive System	Behavior
Price	Price elasticity	Perceived value	Fund Access
Product	Brand Awareness	Satisfaction	Brand fidelity
Promotion	Ad saturation	Ad persuasion	Ad frequency
Place	Pushing/placing	Store image	Repeated purchase
Physical Evidence	Service tangible	Service appearance	Service purchase intention
Process	Knowledge acquisition	Customer value co-creation	Knowledge transfer
People	Word of mouth advertising	Customer driven attitude	Knowledge integration

Entrepreneurs have two basic operant resources: physical and mental skills. Both types of skills are distributed unequally in a population. Each person’s skills are not necessarily optimal for his or her survival and well-being; therefore, specialization is more efficient for society and for individual members of society. The wheel of consumer analysis and the extended marketing mix categorizes entrepreneur’s marketing rationale by either service or product orientation

Relations between measures and each of the factors, considering the possible theoretical constructs, are called correlational hypothesis. PCA rejects the null hypothesis that variable correlation within one measure is not significant (p< 0, 05).

Table 3 identifies the number of common factors influencing a set of latent variables. The strength of the relationship between each latent variable and each observed measure, determined what sets of items “hang together” form table 3 (De Coster, 1998). Empirical results offer a set of new hypothesis or strategies for the Colombian technology based entrepreneur. As mentioned before, the essence of strategic thinking is based upon making decisions that perform business activities in a different manner from competitors, therefore bringing a unique value proposition in return. Strategic mapping in a sense can be used to generate, visualize, structure, and classify ideas, and as an aid to studying and organizing information, solving problems, making decisions, and writing.

RESULTS

Once spearman’s rho coefficient correlation analysis had been performed: Affective-Cognitive system vs Behavior showed significance of (0.360) **, Behavior vs. Environment showed (0.555) **, Environment vs. Affective –Cognitive showed (0.480) **.These results reject the null hypothesis that the wheel of consumer analysis could not be applied at an industry level to interpret entrepreneur’s marketing rationale dynamics. In contrast, these results show the flexibility of WCA for application on different levels of consumer analysis. It helped understanding different societies, industries or activity changes, marketing segments or consumers as individuals. It can be fruitfully used in a wide range of scenarios form small business marketing strategist to public servants in the processing of different business dynamics.

The Kaiser-Meyer-Olkin measure of sampling adequacy tests whether partial correlations among items are small. Values between 0.5 and 1 indicate how appropriate it is to apply Factor Analysis to the data. We obtained 0.793 and so, proceeded with the analysis. Bartlett’s test of sphericity tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is inappropriate. If

variables are not intercorrelated, the test should present a significant level above 0.05. In our case, the analysis showed 0.00 at a $p < 0,01$ and so, the data matrix is appropriate to continue the analysis.

Table 3 Rotated Component Matrix

	Latent Variable H1	Latent Variable H2	Latent Variable H3	Latent Variable H4	Latent variable H5
Brand fidelity	0.722				
Repeated purchase	0.692				
Ad frequency	0.602				
Service purchase intention	0.549				
Word of mouth advertising	0.549				
Knowledge transfer		0.786			
Knowledge acquisition		0.757			
Knowledge integration		0.704			
Customer driven attitude			0.643		
Perceived value			0.617		
Store image			0.583		
Price elasticity				0.687	
Ad saturation				0.682	
Brand Awareness					0.679
Pushing/placing					0.595

Exploratory factor analysis is often confused with principal component analysis (PCA), a similar statistical procedure. However, there are significant differences between the two: EFA and PCA will provide somewhat different results when applied to the same data. The purpose of PCA is to derive a relatively small number of components that can account for the variability found in a relatively large number of measures. This procedure, called data reduction, is typically performed when a researcher does not want to include all of the original measures in analyses but still wants to work with the information that they contain. Only factor loadings above 0,6 were considered in the analysis to sustain the validity of the results.

Figure 2 illustrates the combination of continuous self-reinforcing hypothesis generation process in a value cycle as opposed to a linear value chain with resource allocation to those hypotheses including present and future indicators. The Balanced Scorecard defines objectives and activities in the short term (causes) that will differentiate a company from competition and create long-term value for customers and shareholders (results). The process is top down oriented, by clearly defining the strategy from the perspective of shareholders and customers.

A set of six hypotheses was proposed, based upon the variables reflecting each main latent variable. Since correlation was significant at $p < 0.01$, the null hypotheses, that mutual correspondence is absent, is rejected.

H1: Amplification: augmented intensity of a physical phenomenon by means of an apparatus of device.

Entrepreneurs appreciate the brand fidelity concept by engaging in activities oriented to generate buying patterns between existing clientele. Customer based growth is not to be achieved solely based upon the accidental consumer, but incidental on a referral basis.

H2: Apprehension: Acquisition of knowledge in specialized fields to master core competences.

Entrepreneurs find themselves immersed in a market whose imperative condition is to sustain long-term differentiation through the introduction of knowledge management techniques by acquisition, integration and transferring of knowledge.

H3: Quotation: Finding safe harbor within foreign boundaries locating and satisfying customer needs.

Entrepreneurs choose to sell their product to easily pleased and accessible consumers, especially those products the company can make best.

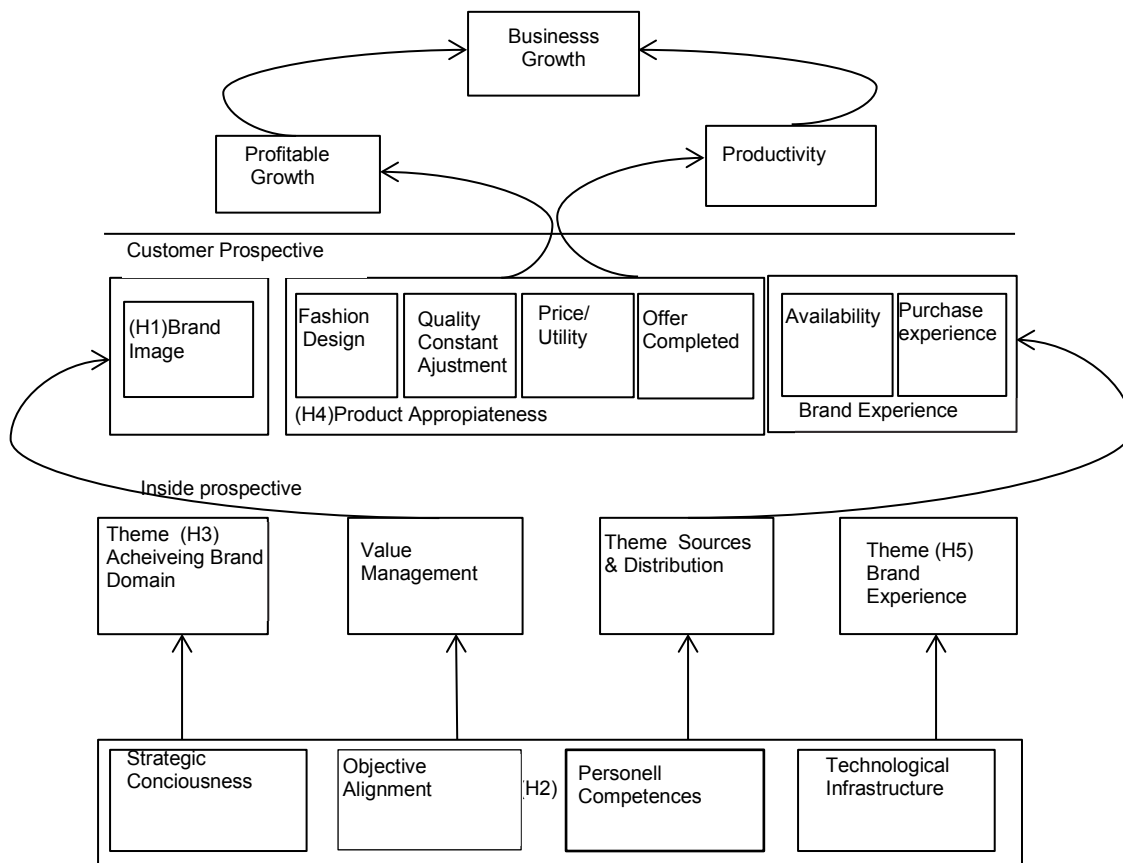
H4: Aptitude: Qualification to be apt, capacity or willingness to perform a task, duty or responsibility

Entrepreneurs acknowledge the necessity to compete on price and quality for their products and consider competition.

H5: Acceptance: Experiencing of comfort by approving a certain course of action.

Entrepreneurs must develop advanced use of strategies tailored to influence the consumer’s environment to willingly generate positive word of mouth advertising on both existing and potential clientele.

Figure 2 Definition of the Cause-effect Relationships of the Strategy



Mind mapping is a simple technique for drawing information in diagrams, instead of writing it in sentences. The diagrams always take the same basic format of a tree, with a single starting point in the middle that branches out, and divides again and again. The tree is made up of words or short sentences connected by lines. The lines that connect the words are part of the meaning.

CONCLUSIONS

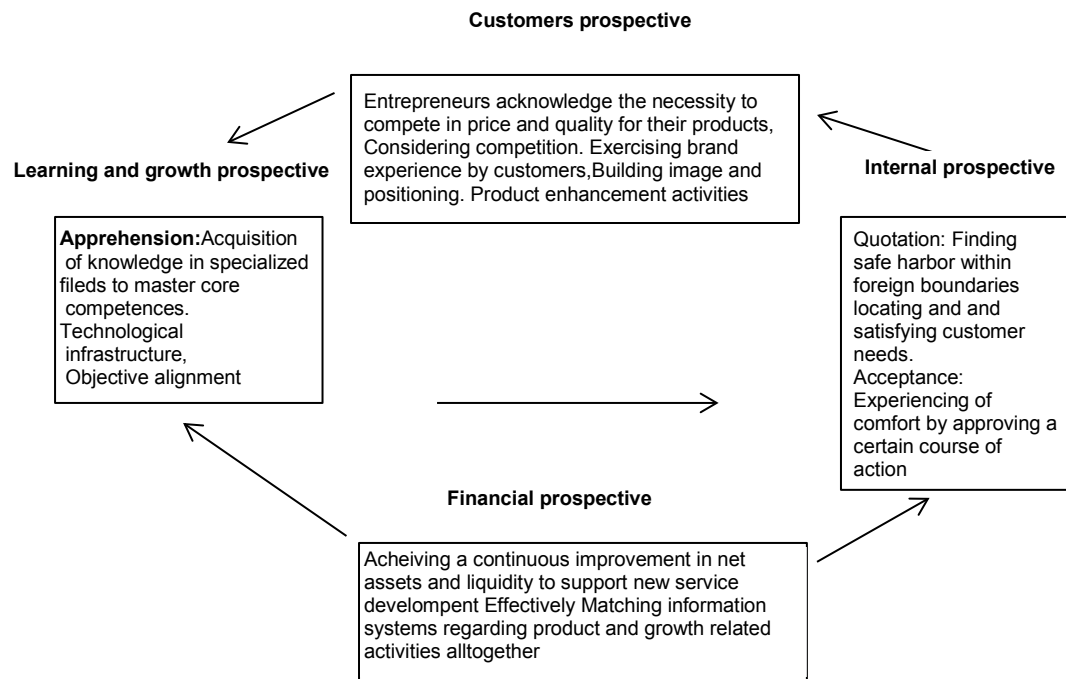
The Balanced Score Card effort by SENA will be the starting point for a new beginning in the quest to reach its long term vision: “providing the latest learning methods, meeting equity between the worker’s need and Business World Demand”. Emphasizing the phrase meeting equity is good news. Previously, entrepreneurial courses only had to follow the book. They didn’t have to worry about when or how actual knowledge management was being performed. The implementation of a Hypothesis based BSC at business incubators involves a cultural shift since it now holds the entrepreneur accountable for the entire learning process. He or she is now compelled to confront their own perception to real market behavior by maintaining a customer centric focus and a sense of continuous process improvement while emphasizing

on results. The Entrepreneur’s BSC will play a crucial role on easing the cultural change that will make possible the supply function to rely on customer value co-creation process as opposed to mere compliance with customer oriented results.

BSC formulates a structure to balance organizational tensions derived from the need to seek business growth and profitability both of which apparently pursue opposing objectives. Figure 3 shows how cultural based hypotheses coming from empirical analysis contributed to the value management process by considering an idiosyncratic perspective found on strategy focused organizational literature. Strategic mapping cleared the way to formulate the balanced scorecard.

The customer's perspective should also include the value proposition, which defines the way in which the company differentiates to attract, retain and deepen relationships with target market population. The financial objectives and relations to the customers are desired results. However they do not explain how to achieve them. The internal processes (such as product design, brand development and markets, sales, service, operations and logistics) define the activities necessary to create the customer value proposition and differentiation, being as important as the desired financial results sought.

Figure 3: Balanced Scorecard for Entrepreneurial Strategic Marketing in Colombia



The traditional approach of constructing special-purpose control methods would require information about the environment, which is not available a priori in several business situations. An alternate approach is to utilize a general control approach with significant capability to adapt its behavior, a so called adaptive problem solving methodology. Using adaptive problem-solving, businesses can use reinforcement learning to adapt an environment-specific search strategy given the entrepreneurial general problem solver with flexible control architecture. The resulting methods would enable the entrepreneur to increase its performance and achieve mission goals.

APPENDIX

The research questionnaire is laid out by questions appointing the intersection between marketing variables with each WCA element. Question #1 is an attitude measurement of Product-Affective Cognitive system relationship. Question #2 is a frequency measurement of Product-Behavior relationship. Question #3 is a perception measurement of the environment-product relationship. For space reduction, questions 4 to 21 are reported without the measurement instrument.

(Opening line) Universidad Militar Nueva Granada is currently conducting an interview among technology-based entrepreneurs. Our main purpose is to identify Education opportunities based upon their strategic marketing rationale. The following questions are related to entrepreneur’s attitude, perception and behavior to be answered on a semantic scale ,where according to the question, choice 1 is located at the beginning of the semantic spectrum and 10 is located at the end. i.e. 1= low frequency behavior, 10= extremely high frequency behavior.

1.Years in operation Product is way Below Expectations	1 2 3 4 5 6 7 8 9 10	Product far exceeds Expectations
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2.How often do you implement actions oriented to increase product contact on customers to generate brand loyalty?	1	2	3	4	5	6	7	8	9	10
Never										
1 to 3 times a										
4 to 6 times a										
7 to 9 times a										
10 or more times										

3	Do you consider that it is easy and fast for your consumer to understand your product benefits and single out your brand among others?	
4	Extremely fast and easy difficult	1 2 3 4 5 6 7 8 9 10 extremely
5	Do you consider necessary to include feelings and emotions to communicate your product benefits in order to persuade your customer in their decision making process?	
6	How often do you have sales promotions, discounts, advertising or incentives to increase your referral base?	
7	Do you consider add saturation on the same product category, can affect demand for your product?	
8	Is your price value in accordance to product differentiation (1=not agree, 10=totally agree)	
9	How often do you execute sales transactions using electronic means such as credit cards?	
10	To what extent do you consider that price fluctuation affects product demand?	
11	How important it is for your business to use store image (physical or virtual) in order to attract customer’s attention to your product?	
12	What same costumer store visit, would you give to your business by frequency range? (1 to 3 times a year, 4 to 6 times a year, 7 to 8 times a year, more than 10 times a year)	
13	How important do you consider it is to generate product contact with your customer, inside or outside your business establishment, i.e.: Trade shows, catalogs, webcasts, etc.	
14	How important it is for your business to provide staff training oriented to improve your customer service?	
15	How often do you offer integration activities among your employees oriented to share experiences and generate a sense of belonging to your business?	
16	How often do you get sales leads from past customers?	
17	Do you get your customer involved in product development processes by taking into consideration their observations?	
18	How often do you implement cross training activities to tear organizational barriers and improve inside business communication?	
19	How often do you implement activities oriented to acquire knowledge from outside of your business to improve business	

	functions?
20	How important do you consider it is to improve your employee's personal presentation or incorporate physical objects to enhance your service experience oriented bring more security in your customer's decision-making process?
21	How often do your customers manifest a positive buying intention thanks to visual objects, packaging or sales brochures incorporated in your business?
22	Do you consider it is characteristic of your business, the need to make service tangible to help your customer understand your offering?

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