



## KEY COMPETENCES IN NEW VENTURES: A MODEL FOR EVALUATING

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### ABSTRACT

This research studies from an internal view based on the Competency-Based Perspective (CBP), key organizational competencies developed for small new business. CBP is chosen in an attempt to explain the differences characterizing the closed companies from the consolidated ones. The main contribution of this paper is the definition of a set of key organizational competencies for new ventures from services and low technology based sectors. Using the classification proposed by [1] and a review of the entrepreneurship literature, the main competencies were defined and classified as: managerial, input-based, transformation-based, and output-based competencies. The proposed model for evaluating new ventures organizational competence is tested by means of Structural Equation Modelling (SEM) and a sample of 526 small firms created between 2003 and 2008 in Catalonia (Spain).

**Keywords:** Business consolidation, Business failure, Entrepreneurship, New ventures, organizational competences.

### 1. INTRODUCTION

The competency approach has become an increasingly means of studying entrepreneurial characteristics and process [2]. However, in the entrepreneurship field, most of the studies focusing on competences analysis have concentrated on individual competences [3], [4], [5]. One of the main reasons is the strong identification of new ventures with their founders. At the beginning of business activity the entrepreneur has a decisive influence on the development of newly established company; even some researchers believe that new ventures are extensions of their founders [6], [7], [8], [9]. In this line, [2] identified some areas of entrepreneurial competences that are important for the entrepreneur and can influence new venture performance. As defined by [2] those areas are:

- ❖ *Opportunity competencies*: Related to recognizing and developing market opportunities.
- ❖ *Relationship competencies*: Communication and interpersonal skills.
- ❖ *Conceptual competencies*: Different conceptual abilities, e.g., decision skills, risk-taking, and innovativeness.
- ❖ *Organizing competencies*: Capabilities for organization of different internal and external resources (e. g. human, physical, financial and technological resources, including team-building, leading employees, training, and controlling).
- ❖ *Strategic competencies*: Setting, evaluating and implementing the strategies of the firm
- ❖ *Commitment competencies*: Competencies that drive the entrepreneur to move ahead with the business

However, from an organizational perspective, it is needed to take into consideration a set of organizational competences fostering a new company performance. Competency-Based Perspective (CBP) provides a useful theoretical framework to understand which organizational competences are important in first years of company life and to explain the survival of new ventures. These competences will be strongly influenced by the figure of the entrepreneur and its individual competences (as described above). CBP theory is focused on explaining how competences are created, developed and accumulated [1], [10].

In order to add knowledge to the entrepreneurship study field, we propose a model for measuring key organizational competences and we believe that these organizational competences will have a positive influence on the survival probability of these new companies. To validate the model of the organizational competences, the present study uses a sample of new ventures from Catalonia (Spain). The sample includes 526 new ventures from services and low-technology based sectors. In the following the theoretical framework and the methodology of the empirical study are presented. Then,

the empirical study shows the obtained results. The paper concludes with some conclusions and some suggestions for future research.

## 2. THEORETICAL FRAMEWORK

Regarding an organization, competences are basically a set of routines, which form the organization’s main system for storing knowledge and determine the regular patterns of behaviour (Turner and Crawford). As mentioned by [11], talking about competences is “*emphasizing what the company does as opposed to what the company has*”.

In the literature, the authors have developed different ways of categorizing competencies [12], [13]. This article follows the classification proposed by [1]. These authors suggest a classification of four main organizational competences that can influence the obtaining of competitive advantages in the company:

- ❖ *Input-based competences* comprise those resources, knowledge and skills that enable a firm’s transformational process to create the product or service.
- ❖ *Managerial competences* include the unique capabilities of the organization’s strategic leader to articulate the objectives of the organization.
- ❖ *Transformational competences* describe the organizational capabilities to convert inputs into outputs.
- ❖ Finally, *output based competences* include those competences that are developed over a period of time and are not freely tradeable, being sources of sustained competitive advantage, such us reputation or image, product or service quality or customer loyalty.

This classification is based on the premise that managerial competencies and strategic focus are responsible for attracting and generating specialized resources that are combined, transformed, and channelled to market goods and services enabling firms to attract and hold on to their customers [11].

### 2.1. Key organizational competences in new ventures

Based on the proposal of [1], a review of the literature identifies some key organizational competencies regarding the survival and consolidation of new ventures (see Figure 1).

#### *Input based competencies*

*Employee know-how.* Employee know-how, especially from people related with production and customer service enhance the productive capacity of the company, allowing resources and time of their human capital could be spent on activities that bring higher value for the company creating a basis for their competitive advantage [14].

*Acquiring and maintaining firm’s resources.* At the time of forming a new business, not all entrepreneurs are able to build and use company’s specific resources (especially those which are not part the company’s central activity). The fact that the company is able to internalize the use of tools, equipment and technology support or account management will help significantly to the achievement of core business [15], [16].

#### *Managerial competencies*

*Enacting the market.* From the point of view of a new organization that began its activity, all the practices that enable customers better understanding have a decisive influence in the strategic decisions that the entrepreneur or entrepreneurial team has to take. That is, if the company has the ability to do market research and promotional activities will allow the company to have a competitive advantage over their competitors and leading better performance. In other words, market investigation, sensitivity to market needs and ability to spot suboptimal deployment of resources may help an entrepreneur to develop opportunities [17].

*Deploying organizational objectives.* As an organization strategic vision is socially constructed, the deployment of the organizational objectives in the first years of a firm operation is extremely

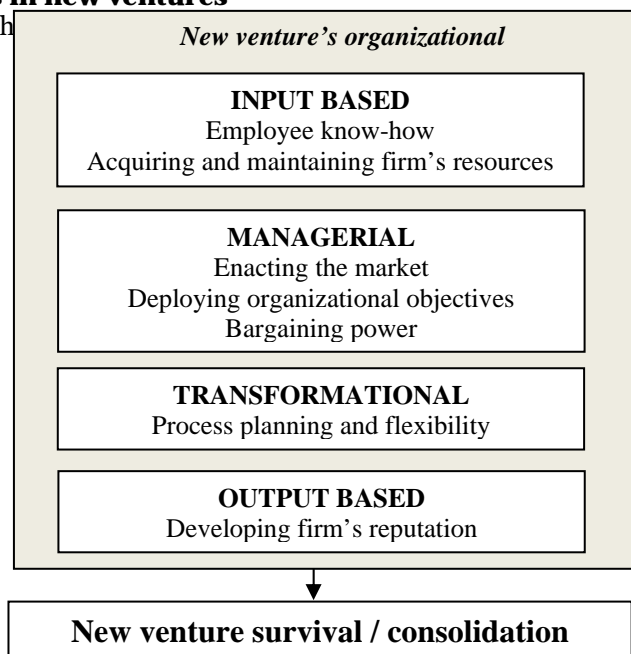


Figure 1. Key competencies related with new venture survival/consolidation

desirable. The understanding of the organizational objectives by the entire new venture's staff, as well as the defined organizational architecture, become the platform to combining and mobilizing resources and focused the organization on the achievement of its strategic vision [18].

**Bargaining power.** As it is well recognized, for all organizations the relationship with its suppliers is crucial. In the case of new companies, this could be considered as one of the keys of their survival. A good coordination of their purchases of raw materials will not produce broken stocks, a fact that may adversely affect the initial image the company is shaping. In addition, good communication with suppliers and the capability of the company to gain some bargaining power will allow the company to reduce initial costs and to ensure quality and delivery times, vital aspects for a new organization [19].

**Transformational competencies**

**Process planning and flexibility.** The companies under study, generally, have little operational experience and, in most cases, operate using little immature and developed routines [20]. However, although we cannot talk about processes standardization in its entirety, the ability of the organization may have acquired in their first months of life to plan their production and servicing processes, as well as to provide the necessary resources in relation to its demand, could help streamline processes and could positively affect business performance.

**Output based competencies**

**Developing firm's reputation.** This competency is defined as the key one in the early years of a venture. It represents the ability of a new company of shaping a good reputation based on, for instance, meeting its customer's expectations, transmitting a quality image and having the flexibility to meet its customer's new expectations. In the early stage, having this competence will be crucial to the venture as the company's reputation begins to take shape. Due to their relatively brief production experience, limited track record, lack of resources, and the considerable uncertainty they face, new firms face a challenge in signaling the quality of their products to customers and other stakeholders [21], [22], [23].

**3. METHODOLOGY**

**3.1. Objective**

The main goal of this research is to identify the structural dimensions that constitute key organizational competences for new ventures. This analysis has lead to a second order factor proposed model, which is tested using Structural Equation Modelling (SEM). Seven first-order constructs related with CBT for new business are defined and operationalized (see Table 1).

Table 1. First order factors.

Items	Standardized Loadings	Standard Errors
<i>Acquiring and maintaining firm's resources (0.978)</i>		
INP1. Accounting management of the company	0.663	0.033
INP2. Support equipments and technologies	0.669	0.034
INP3. Production / service provision facilities	0.763	0.028
<i>Employee know-how (0.979)</i>		
INP4. Training of customer service staff	0.741	0.031
INP5. Training of production staff	0.921	0.026
<i>Enacting the market (0.970)</i>		
MAN1. Ability and resources to undertake market research frequently	0.542	0.045
MAN2. Resources for promotional activities and sale of the product / service	0.647	0.038
MAN3. Business background of the manager	0.798	0.038
<i>Deploying organizational objectives (0.970)</i>		
MAN4. Understanding of company procedures and aims by all company members	0.729	0.033
MAN5. Clear organisational structure (organisational chart)	0.736	0.033
<i>Bargaining power (0.983)</i>		
MAN6. Coordination of purchases of raw materials	0.822	0.027
MAN7. Communication with suppliers	0.764	0.028
MAN8. Ability to negotiate with suppliers	0.683	0.031
<i>Process planning and flexibility (0.988)</i>		
TRAN1. Planning of production process / service provision	0.896	0.016
TRAN2. Production / service provision capacity in relation to demand	0.837	0.019
<i>Developing firm's reputation (0.987)</i>		
OUT1. Delivery of the product / service on time	0.854	0.020
OUT2. Maintenance of the quality of the product / service during distribution	0.813	0.022
OUT3. Flexibility, in order to meet the new expectations of clients	0.702	0.028

Parameters statistically significant at 95%.

### 3.2. Survey development and Data collection

Guided by the literature (see Section 2) individual items for the seven constructs were identified. A survey instrument was then generated to provide test of the items and constructs under investigation. The survey instrument was validated by a team of researchers and entrepreneur consultants. The validation team discussed and assessed each of the survey items. Finally, collected suggestions were aggregated and the corresponding items were amended and/or reworded.

This research is part of a study which looks for the establishment of significant differences between new closed ventures (that close before its consolidation) from those that arrive to their consolidation (considering it as overcome 3.5 years in operation after its foundation). In this sense, the sample collection includes 113 organizations closed before 3.5 years of operation, and 413 organizations in activity (268 non-consolidated and 145 consolidated). Response scale for survey items was eleven-point Likert-type (from 0 to 10). As ex-entrepreneurs are an elusive sampling group (see [24] for considerations) a large data-collection effort was conducted. In pursuit of this aim, a web survey was conducted in 2008 (The questionnaire-based, self-administered, survey was available on request). The survey was delivered to entrepreneurs, by means of entrepreneurial support institutions in Catalonia.

### 4. PROPOSED MODEL AND RESULTS

As shown in the previous sections, the model proposed to evaluate the organizational competence of new ventures is a second order factor model, and it is tested by means of SEM, and specifically using a Confirmatory Factor Analysis (CFA). Tables 1 and 2 show the path of standardized loadings for the proposed constructs. The standardized loading, standard error and reliability obtained

Table 2 Second order factor: Competence.

First order factors	Standardized Loadings	Standard Errors
Acquiring and maintaining firm's resources	0.877	0.027
Employee know-how	0.809	0.030
Enacting the market	0.717	0.039
Deploying organizational objectives	0.890	0.032
Bargaining power	0.907	0.027
Process planning and flexibility	0.889	0.019
Developing firm's reputation	0.825	0.024

Parameters statistically significant at 95%.

levels for this measure. In Table 2 the path of standardized loadings and standard errors for the second order factor is presented.

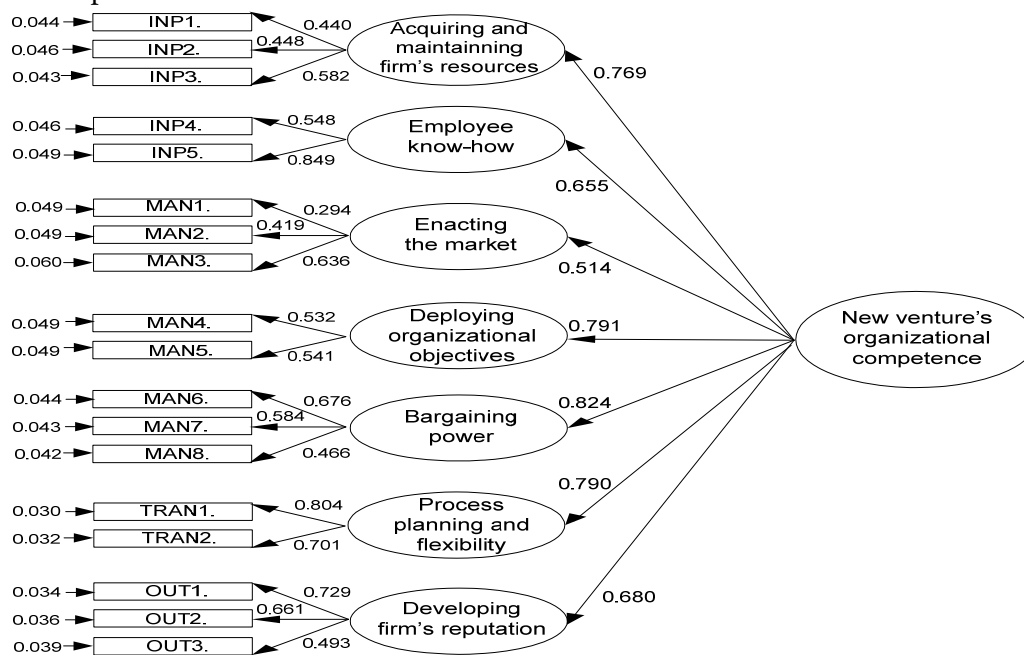


Figure 2. Proposed model for evaluating new venture's organizational competence in services and low-technology based sectors



In our case, the final results for the model show statistically-significant effects from the variables in the second order factor model using Structural Equation Modelling approach. The fit of the model shows a  $\chi^2$  of 452.127, with 125 degrees of freedom and  $p=0.000$ . Other fit measures obtained are the Compared Fit Index (CFI) equals to 0.923 (acceptable above 0.90), the Root Mean Square Error of Approximation (RMSEA) of 0.071 (adequate below 0.10), and the Standardized Root Mean Square Residual (SRMR) equal to 0.048 (acceptable below 0.05). Thus, the measures show a good fit of the model. However, these measures are sensible to large sample size, as in our case. For this reason, we checked for misspecifications in the model. However, misspecifications were not found, in other words, any other theoretical significant effect exists in the model. All effects in the model are significant at 95%. The relationships and effects are provided in the structural part of the model (Figure 2). The related standard errors are given in brackets.

Results for our model show three latent variables to be more related with the organizational competence concept. The first two variables are related to managerial competences, *bargaining power* and *deploying organizational objectives*; and the third one, *process planning and flexibility*, is about transformational competences. Responses from the sample suggest that bargaining power (Coordination of purchases, communication and ability to negotiate with suppliers) could be thus the most important component of the managerial competences, and in general, of the organizational competence for new ventures in services and low-technology sectors.

### 3. CONCLUSIONS

An empirical attempt to define and validate the new venture's organizational competence construct is presented in this work. Previous studies are mainly focus on a specific competence or on the entrepreneur individual competences (as shown in Section 2). Results presented are a first approximation to operationalize the assessment of organizational competences in new ventures from services and low-technology sectors. The proposed model provides an alternative to better understanding and analysing the new venture's activity from an internal view based on the CBT. Next step in the research is to apply the obtained construct to assess the organizational competence of new ventures, both closed and in operation. It is expected that the relationship between competencies construct and the business current situation (i.e. organizations closed before 3.5 years of operation and organizations in activity -non consolidated and consolidated-) results significant for the companies in the collected sample. Future research can also include the study of the process in which entrepreneur's personal competences become (or allow the development of) organizational competences in new ventures.

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### REFERENCES

- [1.] LADO A A and WILSON M C. *Human resource systems and sustained competitive advantage: A competency-based perspective. Academy Management Review* 1994; 19(4), 699-727.
- [2.] MAN T W Y; LAU T and CHAN K F. *The competitiveness of small and medium enterprises. A conceptualization with focus on entrepreneurial competencies. Journal of Business Venturing* 2002; 17, 123-142.
- [3.] BIRD B. *Towards a theory of entrepreneurial competency. Advances in Entrepreneurship, Firm Emergence and Growth* 1995; 2, JAI Press, Greenwich, CT, pp. 51-72.
- [4.] HERRON L; ROBINSON R B. *A structural model of the effects of entrepreneurial characteristics on venture performance. Journal of Business Venturing* 1993; 8 (3), 281-294.
- [5.] LAU T; CHAN K F and MAN T W Y. *Entrepreneurial and managerial competencies: small business owner- managers in Hong Kong. In: Fosh, P., Chan, A.W., Chow, W.W.S., Snape, E., Westwood, R. (Eds.), Hong Kong Management and Labour: Change and Continuity* 1999. Routledge, London.
- [6.] BRÜDERL J; PREISENDÖRFER P and ZIEGLER R. *Survival chances of newly funded business organizations. American Sociological Review* 1992; 57(2), 227-242.
- [7.] BRÜDERL J and PREISENDÖRFER P. *Network support and the success of newly founded business. Small Business Economics* 1998; 10, 213-225.
- [8.] CHANDLER G N and JANSEN E. *The founder's self-assessed competence and venture performance. Journal of Business Venturing* 1992; 7(3), 223-236.
- [9.] VAN DE VEN A H; HUDSON R and SCHOROEDER D M. *Designing new business start-ups: Entrepreneurial, organizational and ecological considerations. Journal of Management* 1984; 10, 87-107.

- [10.] PALACIOS D; GIL I and GARRIGOS F. *The impact of knowledge management on innovation and entrepreneurship in the biotechnology and telecommunications industries. Small Business Economics* 2009; 32(3), 291-301.
- [11.] ESCRIG-TENA A B and BOU-LLUSAR J C. *A model for evaluating organizational competencies: An application in the context of a quality management initiative. Decision Sciences* 2005; 36(2), 221-256.
- [12.] HALL R. *Tie strategic analysis of intangible resources. Strategic management journal* 1992; 13, 135-144.
- [13.] MILLER D and SHAMSIE J. *The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965. Academy of Management Journal* 1996; 39(3), 519-543.
- [14.] HALL R. *A Framework Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage. Strategic Management Journal* Nov.1993; 14(8), 607-618.
- [15.] MAHONEY J T and PANDIAN J R. *The Resource-Based View within the Conversation of Strategic Management. Strategic Management Journal* 1992; 15(5), 363–380.
- [16.] PRAHALAD C K and HAMEL G. *The core competence of the corporation, Harvard Business Review* 1990; 68(3), 79–91.
- [17.] ARDICHVILI A et al. *A theory of entrepreneurial opportunity identification and development. Journal of Business Venturing* 2003; 18, 105–123
- [18.] MARTIN G and HARRY S. *Managerial Competences in Small Firms. Journal of Management Development* 1994; 13(7), 23-34.
- [19.] YLI-RENKO H; AUTIO E and TONTTI V. *Social capital, knowledge, and the international growth of technology-based new firms. International Business Review* 2002; 11(3), 279-304.
- [20.] BAUM J A C and SILVERMAN B S. *Picking winners or building them? Alliances, patents and human capital as selection criteria in venture financing of biotechnology start-ups. Journal of Business Venturing* 2004, 19, 411-436.
- [21.] STUART T E; HOANG H and HYBELS R C. *Interorganizational endorsements and the performance of entrepreneurial ventures. Administrative Science Quarterly* 1999, 44(2), 315-349.
- [22.] REUBER A R and FISCHER E. *Don't rest on your laurels: Reputational change and young technology-based ventures. Journal of Business Venturing* 2007; 22, 363-387.
- [23.] POLLOCK T G; CHEN G; JACKSON E M and HAMBRICK D. *How much prestige is enough? Assessing the value of multiple types of high-status affiliates for young firms. Journal of Business Venturing* 2010; 25, 6-23.
- [24.] ASKIM M K and FEINBERG R A. *Ex-entrepreneurs: an elusive group driving sampling considerations. Academy of Entrepreneurship Journal* 2003; 9(1), 11-20.
- [25.] FORNELL C and LARCKER D F. *Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research* 1981; 18, 39-50.
- [26.] NUNNALLY J C. *Psychometric theory* 1978. New York, NY: McGraw-Hill

