

The Absorptive Capacity-Based View of Training: Enhancing Organizational Performance: An Exploratory Study in Spanish Family Businesses

Felipe Hernández Perlines, María Yolanda Salinero Martín, and Benito Yáñez Araque

Department of Business Administration, University of Castilla-La Mancha,
Cobertizo de San Pedro Mártir, s/n, 45071 Toledo, Spain
{felipe.hperlines,yolanda.salinero,benito.yanez}@uclm.es

Abstract. In recent years academic interest has grown considerably regarding the absorptive dynamic capability, and as such, studying the effect it has on organizational learning, knowledge sharing, innovation, capacity building and performance of the company has greatly increased. Moreover, numerous research papers have studied the effect that training has on organizational performance. However, there are very few studies which link together training, absorptive capacity / learning capability and organizational performance. Investigations of this manner can make interesting contributions to the field of absorptive capacity, learning and the development of a new approach to more effective human resources training based on absorptive capacity as strategy. Indeed, the aim of this work is to create an approach whereby one can determine whether the connection between training and performance in Spanish family businesses is mediated by absorptive capacity. To this end, we propose the case study method in six Spanish family businesses.

Keywords: Absorptive Capacity, Training, Organizational Learning, Intellectual Capital, Knowledge, Family Business.

1 Introduction

Authors such as [1], as in previous studies, suggest the importance of the absorptive capacity (hereinafter ACAP) to improve performance and the generation of competitive advantages.

In the origins of the concept of ACAP we find the first connection between training and ACAP, which comes from the field of education: "the concept of ACAP can best be developed through an examination of the cognitive structures that underlie learning" [2]. With this in mind, the theory of meaningful learning [3–5] will help us better understand how training and ACAP are intimately linked.

Training is one of the principal intangible elements of intellectual capital items, and is a tool that facilitates learning while helping to smooth this process, "teaching to learn", as it were, and when the ACAP mediates, new knowledge is created and new skills are developed. This may be done individually or in groups, and can be planned or spontaneous, as well as being short or long term [6, 7].

Our study focuses on the family business (FB, hereafter) that "are the predominant type of company in the world", as is the case in Spain. Several authors have confirmed that in the FB the training process experienced by potential successors influences both their decision to fully integrate into the FB as well as their performance and continuity in it.

Through the case study method, we propose to (a) study the level of development of ACAP in six family companies; (b) essentially describe how to carry out the practice of human resource training development in these companies, (c) assess their strengths and weaknesses as they relate to the components of the ACAP. This proposal intends to finally approximate whether ACAP can be a mediator between the training processes and its conversion into a competitive advantage.

2 Training, Organizational Learning, Absorptive Capacity and Performance

There can be no doubt that in recent years the ACAP is becoming increasingly important to all companies. The first thing that must be done is to contextualize this.

Brettel et al. [1] suggest that the ACAP of a firm is a skill which develops in an accumulative form which is path-dependent, and is based on existing knowledge. With respect to the resource-based view (RBV, hereinafter) of the company, the ACAP is a set of business capabilities that can explain differences in competitive advantage. However, because the RBV is a static method that assumes that resources differ in value, rareness, imitability, and substitutability [8–10], it overlooks the underlying dynamics of ACAP. This dynamic is reflected in the vision that emerges from the dynamic capabilities [11, 12], which can be seen as a variation and further development of the RBV. This approach takes into account that the estimated resources are likely to change over time.

The following is a review of chain relationships and the different concepts that concern us.

2.1 Training and Organizational Learning

Several studies directly related training as an element of organizational learning. This is true in the case of Castañeda and Fernández [13], who propose that an instrument consists of six dimensions, three of which are the individual, group and organizational, and three more where the condition for organizational learning occurs: organizational learning culture, training and transmission of information.

2.2 Absorptive Capacity and Organizational Learning

Lane et al. [14] relate directly with learning the first two dimensions of the ACAP consisting of the skills to understand and assimilate new external knowledge. That is,

the acquisition of new external knowledge itself does not affect the performance but does so through learning as it will require the effective application of that knowledge. Furthermore, an interesting finding is that the acquisition of prior knowledge only influences learning when combined with high levels of training.

Dimensions of Absorptive Capacity. Zahra and George [15] extend the ACAP of the three original dimensions (identify, assimilate and exploit) to four dimensions (acquisition, assimilation, transformation, exploitation). They propose that ACAP is a multidimensional construct that refers to a dynamic capability relative to the creation and use of knowledge that in turn relates to the ability of the company to gain and sustain a competitive advantage. In their model, these authors distinguish two groups of skills: the potential ACAP (PACAP) and realized ACAP (RACAP). The PACAP includes the acquisition and assimilation capabilities, and includes RACAP transformation and exploitation of knowledge.

Proposed Measure of Absorptive Capacity. Although the work of Cohen and Levinthal [2] highlights the multidimensionality of ACAP, researchers have measured it as a unidimensional construct, often using proxy variables inputs of R&D, as spending on R&D company, the R&D intensity (R&D expenditures divided by sales), and the outputs of R&D, as the number of patents. Flatten et al. [16] propose a scale for measuring the ACAP. In the proposed measure, they evaluate the degree to which a company is engaged in the activities of acquiring knowledge, assimilates the acquired information with existing knowledge, transforms newly adapted knowledge, and commercially exploits their knowledge by transforming it into competitive advantage. This is the scale used to measure the ACAP in our research: we obtained the values of the various dimensions of ACAP in each of the cases studied.

2.3 Absorptive Capacity and Performance in the Company

Several studies have focused on the performance of the company as a result of the ACAP. In fact, empirical results show a significant positive relationship between ACAP and firm performance [14]. The main results of the ACAP model show innovative performance and financial performance in terms of competitive advantage and knowledge transfer between companies.

3 Methodology

We believe it appropriate to develop this study by the case study method, since it is an appropriate method for exploratory research [17]. Also, given the state of the question, despite the immediate evidence of the relationship between training, ACAP and results, the fact is that there are not many studies linking together the three concepts.

With respect to the number of cases studied, we believe that the six selected are enough for two main reasons:

- As opposed to the unit of analysis of a single case, study of multiple cases, like ours, is a powerful tool to create theory because they permit replication and extension among individual cases [18].
- Analysis of six cases has allowed us to reach the "point of redundancy" [19] so the addition of new cases would not significantly enriched sample theoretical saturation [20].

The cases studied correspond to six family businesses, whose location and merchandising range is Spain and the theoretical sample meets the criterion of selection that each has a training department. Briefly, the characteristics of the companies in our study are as follows: company A, auxiliary services sector company, founded in 1962, with more than 80,000 employees; company B, distribution sector company, created in 1977, with more than 70,000 employees; company C, food sector company, established in 1978, with more than 800 workers; company D, pharmaceutical sector company, began trading in 1838, with 550 workers; company E, bottling sector company, established in 1951, with 1,200 workers; company F, food sector company, established in 1991, with 3,800 workers.

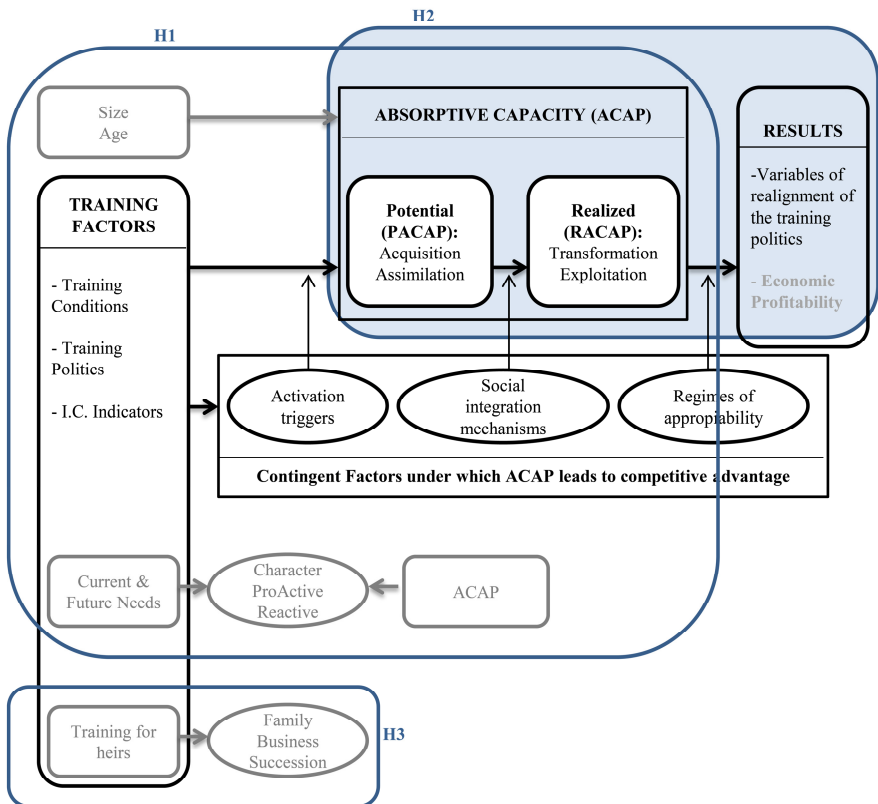


Fig. 1. Tentative preliminary model

Key respondents have been the General Director &/or the Director of Training. The time frame in which data was collected was between June and December 2012.

To gather the data we sent a self-administered questionnaire, using Likert scale questions and other open questions which were more characteristic of the semi-structured interview for qualitative analysis. The questionnaire was posted at: <http://www.instituto-csic.es/uclm.grokis/> to make it available to those cases selected. All information has been analyzed with the help of the computer tool ATLAS/ti in order to find analysis codes.

The model is contrasted in two steps through the Proposition 1 (H1) and 2 (H2). A third proposition (H3) completes the tentative model. Figure 1 shows the assumptions made and their interactions in the proposed model.

4 Case Analysis: Findings

To analyze the connection between training, ACAP (as mediator variable) and performance in the Spanish FB, we developed the following propositions.

4.1 Proposition 1 (H1): The Training Has a Positive Effect on ACAP

From the data obtained from the analysis of the cases we observed training factors which are more favorable, both in terms of training politics as intellectual capital indicators, and which have impacted positively the ACAP of the six companies. Likewise, the training improves both the factor and the efficiency ratio of the ACAP: the six companies have good training conditions that correspond to good indicators of efficiency of ACAP. The training is positively related to a better ACAP as much potential as realized.

In turn, those training factors which we studied explain the differences in development between the different dimensions of ACAP. Training factors influenced each of the dimensions of the ACAP, as discussed in the study, and further related the training items rated by the six companies with the dimensions of the ACAP, and other facilitators and inhibitors of ACAP: contingent factors, proactive and reactive character, and size and age of the company.

Contingent Factors of ACAP. Zahra and George [15] identify the activation triggers, social integration mechanisms, regimes of appropriability as key contingencies affecting the ACAP.

Activation Triggers. Triggers moderate the impact that sources of knowledge and experience have on the development of ACAP. These are events that drive companies to respond to certain internal or external stimuli [15]. The current economic crisis is, according to these authors, an internal trigger of the ACAP.

The crisis has negatively impacted the organization of training activities by firms [21]. This is also what we see in this study. However, a crisis, despite being negative, can enhance a company's efforts to achieve and learn new skills and acquire new

skills that increase the ACAP [15]. Training is important, if possible, in times of crisis, since the changes caused by the crisis require new skills.

Social integration mechanisms. We found that the six companies, especially the cases B, C and E with greater ACAP made, encourage employees to share knowledge on an informal level, and the training in teamwork is an important training need.

Regimes of appropriability. The appropriateness of human resources training will depend on: a) the durability of the worker in the company, especially because a durable resource favors sustaining competitive advantage [22, 23] and b) of the ACAP.

In our study, both case B and C and F (all other cases, to a lesser extent), career advancement is the incentive used to motivate more workers in conducting training activities.

Current Needs-future. Organizations with higher levels of ACAP tend to be more proactive, exploiting opportunities present in the environment, regardless of the actual results. However, organizations that have a modest ACAP tend to be reactive, looking for new alternatives in response to the lack of a performance criterion [2]. We try to know the reactive nature (training meets current needs) or proactive (training tries to cover future skills requirements in the enterprise) [24]. The companies with greater ACAP (B, C, E, F) respond proactively while in instances of minor ACAP (A, D), the responses are reactive.

Size and Age of the Firm. Here the result is inconclusive because it would require a quantitative analysis to extrapolate it. Nevertheless, our finding is that ACAP is inversely related to the size and age of the cases studied. Liao, Welsh, and Stoica [25] suggest that small firms are better able to respond to changes and are more innovative due to less bureaucracy and more simple hierarchy of their organizational structures.

4.2 Proposition 2 (H2): The ACAP Positively Affects Performance

To measure business performance variables we have used the feedback of the training politics. We took, therefore, a subjective measure for these results: the views of management concerning a number of items of business performance [26]. The use of other more objective outcome variables, such as profitability, would only be feasible from the perspective of quantitative analysis.

We found that the relationship between staff training and business performance is positive, but the intensity of this relationship depends on the level of development of ACAP.

When respondents were asked about what the training was for them, the six companies, but especially company C, responded that they placed high value on associating a business as an investment and also on ways to increase the profitability of the company.

Other items were rated including improving the quality of products or services and reducing the number of accidents.

4.3 Proposition 3 (H3): The Training for Descendants That Is Included in Business Plans Favors the Succession

On the problem of succession, none of the companies include any training on issues of family businesses targeting family descendants, except in the case of company C which includes succession planning in its training. In the words of its CEO: "In this business, the family has always supported people who value loyalty and family. Children are working in the company, all of whom are well prepared academically".

5 Conclusions

The training of employees is a strategic resource that will encourage the development of dynamic capabilities. Traditionally, from the human capital theory [27], training represents an "investment that operators made with the expectation of later profits: in the form of higher revenues from higher productivity" [28]. However, this transfer of training results is not performed directly, but, as we propose, is mediated by the ACAP.

Thus the practice of training is positively related with the ACAP in FBs studied: it represents a direct form of creation and development of ACAP as a source of external knowledge and complementarity. In the same way, training is directly involved in different dimensions of the ACAP: acquisition, assimilation as an indicator of the ability to assimilate new knowledge adopted by the enterprise, transformation and market exploitation. In the cases studied we've also seen the interactions of training with contingent factors of the ACAP such as proactivity-reactivity and size and age of the company.

Therefore, we argue that training improves the ACAP and, in turn, business performance. And we propose training of company heirs as a way of promoting the FB succession.

This means a new approach that has implications for training management and practical HR strategies from the perspective of ACAP. Some of these implications are:

- Establish training plans which are ACAP-oriented; that is, when designing training plans, incorporating in the methodology for training planning, in addition to the training needs, the needs of organizational absorptive capacity. And, as with the ACAP, the training needs of an organization are not only the sum of the training needs of their employees, but must also take into account the dimensions of the ACAP and influence those that demand improvement.
- As we've already described herein, a way of appropriating the returns of the training is to improve the ACAP: ACAP is revealed as a form of appropriating the returns of the training investment in company. This is especially important for the FB, due to the enduring nature of company heirs, and since these are presumed stable, their training is justified in greater measure, if possible, than in non-family firms. To this must be added the importance of training for succession of descendants; therefore, inclusion of training for descendants in the training plans of the company is a good practice for the FB.

- We suggest that the economic crisis, as an activation trigger of the ACAP, may represent an opportunity and an incentive for companies not to give up; rather totally to the contrary, that they emphasize the importance of human resource training. This is especially relevant for the FB, if we take into consideration the claims of some authors such as Lee [29]: the FB tend to lay off fewer employees in periods of economic crisis than their non-family counterparts.

To overcome the limitations of the case study method, would be useful to make a quantitative analysis, as future research way, based on a sample of companies and confirmation of propositions by structural equation model (SEM).

References

1. Brettel, M., Greve, G.I., Flatten, T.C.: Giving up linearity: Absorptive capacity and performance. *J. Manag. Issues.* 23, 164–189 (2011)
2. Cohen, W.M., Levinthal, D.A.: Absorptive Capacity: A New Perspective on Learning and Innovation. *Adm. Sci. Q.* 35, 128–152 (1990)
3. Ausubel, D.P.: The psychology of meaningful verbal learning: An introduction to school learning. Grune & Stratton, New York (1963)
4. Ausubel, D.P.: Educational psychology: A cognitive view. Holt, Rinehart and Winston, New York (1968)
5. Ausubel, D.P.: Psicología educativa: un punto de vista cognoscitivo (Roberto Helier D., Trad.). Editorial Trillas, México (1976)
6. Martínez, I.M.: El aprendizaje en las organizaciones. Aplicación al sector agroalimentario (2002)
7. Martínez, I.M., Ruiz, J.: Los procesos de creación del conocimiento: El aprendizaje y la espiral de conversión del conocimiento. XVI Congreso Nacional AEDEM, Alicante (2002)
8. Penrose, E.: The Theory of the Growth of the Firm. Wiley, New York (1959)
9. Barney, J.B.: Firm resources and sustained competitive advantage. *J. Manage.* 17, 99–120 (1991)
10. Wernerfelt, B.: A Resource-based View of the Firm. *Strateg. Manag. J.* 5, 171–180 (1984)
11. Easterby-Smith, M., Prieto, I.M.: Dynamic capabilities and knowledge management: An integrative role for learning? *Br. J. Manag.* 19, 235–249 (2008)
12. Teece, D.J., Pisano, G., Shuen, A.: Dynamic capabilities and strategic management. *Strateg. Manag. J.* 18, 509–533 (1997)
13. Castañeda, D.I., Fernández, M.: Validación de una escala de niveles y condiciones de aprendizaje organizacional. *Univ. Psychol.* 6, 245–254 (2007)
14. Lane, P.J., Salk, J.E., Lyles, M.A.: Absorptive capacity, learning, and performance in international joint ventures. *Strateg. Manag. J.* 22, 1139–1161 (2001)
15. Zahra, S.A., George, G.: Absorptive capacity: a review, reconceptualization and extension. *Acad. Manag. Rev.* 27, 185–203 (2002)
16. Flatten, T.C., Engelen, A., Zahra, S.A., Brettel, M.: A measure of absorptive capacity: Scale development and validation. *Eur. Manag. J.* 29, 98–116 (2011)
17. Chetty, S.: The Case Study Method for Research in Small- and Medium-sized Firms. *Int. Small Bus. J.* 15, 73–85 (1996)
18. Eisenhardt, K.M.: Better stories and better constructs: The case for rigor and comparative logic. *Acad. Manag. Rev.* 16, 620–627 (1991)
19. Lincoln, Y.S., Guba, E.G.: Naturalistic Inquiry. Sage Publications, Beverly Hills (1985)

20. Eisenhardt, K.M.: Building Theories from Case Study Research. *Acad. Manag. Rev.* 14, 532–550 (1989)
21. European Foundation for the Improvement of Living and Working Conditions: Preparing for the upswing: training and qualification during the crisis. Publications Office of the European Union, Luxembourg (2011)
22. Grant, R.M.: The resource-based theory of competitive advantage: implications for strategic formulation. *Calif. Manage. Rev.* 33, 114–135 (1991)
23. Grant, R.M.: Dirección Estratégica. Conceptos, técnicas y aplicaciones. Civitas, Madrid (1995)
24. Leal Millán, A., Alfaro de Prado Sagrera, A., Rodríguez Félix, L., Román Onsalo, M.: El factor humano en las relaciones laborales. Pirámide S.A., Ediciones, Madrid (1999)
25. Liao, J., Welsch, H., Stoica, M.: Organizational Absorptive Capacity and Responsiveness: An Empirical Investigation of Growth-Oriented SMEs. *Entrep. Theory Pract.* 28, 63–85 (2003)
26. Salinero, M.Y.: La formación como fuente de ventaja competitiva. Análisis de las empresas de Castilla la Mancha (2006)
27. Becker, G.S.: Human Capital. Columbia University Press for the National Bureau of Economic Research, New York (1964)
28. Araujo, A., Barrutia, J., Hoyos, J., Landeta, J., Ibáñez, P.: Comportamiento de las empresas respecto a la formación continua de sus directivos. *Cuad. Gestión.* 6, 83–98 (2006)
29. Lee, J.: Family Firm Performance: Further Evidence. *Fam. Bus. Rev.* 19, 103–114 (2006)