

## Increasing the Reach of Enterprises through Electronic Commerce: A Focus Group Study Aimed at the Cases of Portugal and Spain

Ramiro Gonçalves<sup>1,2</sup>, José Martins<sup>1,2</sup>, Frederico Branco<sup>1,2</sup>, Manuel Perez-Cota<sup>3</sup>, and Manuel Au-Yong Oliveira<sup>4</sup>

<sup>1</sup> University of Trás-os-Montes e Alto Douro,  
5000-801 Vila Real, Portugal  
{ramiro, jmartins, fbranco}@utad.pt

<sup>2</sup> INESC TEC (coordinated by INESC Porto), Faculty of Engineering, University of Porto,  
4200-465 Porto, Portugal  
{ramiro, jmartins, fbranco}@utad.pt

<sup>3</sup> University of Vigo,  
36310 Vigo, Spain  
mpcota@uvigo.es

<sup>4</sup> GOVCOPP, Department of Economics, Management, Industrial Engineering and Tourism,  
University of Aveiro,  
3810-193 Aveiro, Portugal  
mao@ua.pt

**Abstract.** E-commerce notably increases the reach of enterprises, bringing a firm's products and services into the international arena. In times of shrinking domestic markets, due to national crises, becoming available in global markets is essential for survival and growth. We have thus held three focus group interactions to produce a set of strategic recommendations with regards to how to improve e-Commerce adoption levels in Iberian enterprises, essential in times of local hardship and market contraction. Suggestions include creating actions to influence governments to re-evaluate the legislation that regulates e-Commerce, making it more transparent; encouraging venture capitalists, banks and business angels to finance such e-Commerce endeavors; encouraging higher education institutions (HEI) to partner with Iberian enterprises to ensure knowledge transfer in both directions; creating, with HEI and training organizations, a set of new training courses directed at Iberian enterprises and focusing on concepts such as Web 2.0 capabilities and a coherent online organizational identity. Fundamental is the perspective that e-Commerce is a strategic issue, warranting funds and qualified personnel, at different levels in the hierarchy, for adequate strategic e-intent, e-vision, and e-mission formulation, followed by effective e-process implementation.

**Keywords:** BNML, e-commerce adoption, focus group, Iberia, internationalization.

## 1. Introduction

Firm success increasingly involves being active in digital marketing (involving the creation of a large online audience and following) as well as having a consistent online presence, for e-Commerce transactions, in what is becoming a technology-dominated world, as the success and reach of Facebook, Google, Amazon, e-bay, Apple and Samsung, to name but a few, has shown us. Internationalizing via the Internet provides an additional channel for the distribution of firm products and services and thus in the midst of a crisis it is seen to be a positive way to impact revenues and performance, while decreasing costs. Thus, governments and related entities should take measures to improve e-Commerce adoption, as it makes economic sense, especially in the international arena. At the macro-economic level, whilst in crises, such as the one Portugal and Spain were going through at the time of writing, governments struggle with unemployment subsidies and depend on firm and individual taxes to maintain social security payments and the meeting of state obligations. State investment, seen to be a solution in slowing economies and a means to inject money and jobs into the economy, is only possible if firms and individuals are well-employed. E-Commerce may thus contribute very positively to firm and societal outcomes. E-Commerce should not be neglected in an increasingly mobile world where shoppers spend ever more time online, browsing Internet websites for items which they need and which interest them. At any time of the day and in any geographic location, e-Commerce transactions may take place. Relatively small costs and investment, making the above possible – namely contributing to safe online transactions, including on mobile devices, as well as adapting the e-Commerce platform to international markets, involving language translation, usability considerations, and e-consumer knowledge which lead to the closure of e-sales, and ensuring safe and fast product delivery channels – may see sales increase exponentially.

The study of the Internet and its technologies as a means to do business worldwide has been in the agenda of several research projects [1-3]. The current era of Information and Communication Technologies (ICT) ushered in the era of electronic commerce and the information society; where traditional management paradigms are challenged and new business models are sought; and where the continuous improvement of both business and processes needs leads to a rise in the importance of their alignment [4-7]. The adoption of new Internet-based business models will certainly generate positive business revenues, thus the potential for e-business is high enough to compel enterprises to go online [8-11].

The benefits of using e-Commerce as a new way for SMEs (about 99% of the EU market [12]) to do business are well supported by the existent literature [13-16]. Nevertheless, it's also very important to understand the variables inherent to the adoption of e-Commerce websites, in order to better adjust a company's online presence and raise its business volume [17-20,71].

The adoption of e-Commerce by organizations is a very up-to-date issue. Despite the existence of numerous valid empirical works [21,13,22,23], to our knowledge there are few others performing qualitative analyses to the e-Commerce adoption issue, thus similar to the one presented in this article, and revealing indicators on the adoption of e-Commerce by organizations all around the world [24-31]. As concerns Iberia (the peninsula including Portugal and Spain) we can see two different indicators regarding e-

Commerce adoption with distinct results, which are the number of Portuguese and Spanish organizations using e-Commerce and the number of Portuguese and Spanish Internet users. These indicators both present themselves with relatively low values and the reasons behind those factors are still to be explained. With this in mind, we used a focus group and the knowledge that it could aggregate in order to achieve a global set of recommendations (and expected results of their implementation) that could be used for improving the adoption to e-Commerce in Portugal and Spain. Besides reaching the referred set of recommendations, we have also created a strategic proposal to encourage Iberian e-Commerce adoption. This proposal is composed by several action guidelines that aim to offer some guidance on how to solve the referred adoption issue.

This article is divided into five parts, including the introduction and subsequent theoretical and background considerations (sections 1 and 2). In section 3 the study inherent to the present article is presented alongside with its data collection, analysis and discussion and with the general recommendations towards the adoption of e-Commerce that emerged from those results. In Section 4 we present a roadmap towards improving e-Commerce adoption in Iberia supported by the Business Narrative Modelling Language (BNML) and in section 5 some conclusions concerning our work are presented.

## **2. Research Characterization and Conceptualization**

### **2.1. Research objectives**

Although the theme of e-Commerce has already been a subject of discussion by various authors over the last fifteen years, the problems inherent to e-Commerce adoption still need to be overcome. This situation can be found to be true in reports published by the European Union, which show that the number of active e-Commerce initiatives is low and that the level of adoption to those same initiatives is far from the desired levels. Although the values at the European level are not as good as expected, with regards to Iberian e-Commerce initiatives, the values are even somewhat lower. These facts may place Portuguese and Spanish enterprises in a disadvantaged position, vis-à-vis international competitors, and may lead to possible negative impacts on the businesses in this geographic area. Thus, we set out to determine how electronic commerce can become more widespread in Portugal and Spain and to provide solutions to increase electronic commerce in this region; setting forth a strategic road map for increasing e-business in Portugal and Spain, while also using the novel Business Narrative Modelling Language (BNML) to portray some of the research findings.

In the case of countries going through a serious domestic financial crisis, the cases of both Portugal and Spain at the time of writing, internationalizing a firm's products and services, online and otherwise, is of paramount importance. While local consumer purchasing power may suffer from local economic contingencies, other geographic locations may be completely unaffected by these. We see that in this context, our research is of added importance.

## 2.2. The online distribution channel – previous research and current trends

The literature shows an increased interest in the subject of e-Commerce, with related articles appearing in an increasingly broad research field. The Internet and its commercial possibilities have truly proven to be revolutionary for many enterprises across the globe.

The USA and China are currently positioned as the main sources of e-Commerce and in accordance with a mainstream consultancy firm, the Boston Consulting Group, the amount of e-Commerce in China will soon surpass that registered in the U.S. market, making it an e-commerce superpower [32]. Of note is that in the USA electronic shopping has been the most pronounced in the travel, computer equipment, software, automobile, clothing, as well as in the home furnishings markets [33].

It is fair to say that e-commerce positively impacts productivity however a number of steps should be followed to ensure success, namely with regards to marketing in so far as a clear and stable organizational identity needs to be focused upon and communicated over time, while on the other hand maintaining a high degree of adaptability in a fast-changing environment.

New terms are appearing such as the concept of social commerce: “E-commerce is undergoing an evolution through the adoption of Web 2.0 capabilities [more customer-centered and based on collective intelligence] to enhance customer participation and achieve greater economic value. This new phenomenon is commonly referred to as social commerce” [34].

Other studies have analysed specific online marketing techniques and “the influence of free delivery and free returns on the purchasing and return behaviour of real e-customers in the marketplace” [35]. Lantz and Hjort [35] actually suggests a) “that a lenient delivery policy is associated with increased order frequency, decreased average value of purchased items, increased probability of return, and increased average value of returned items”; and b) that “a lenient return policy was found to be associated with increased order frequency, a decrease in the average value of orders, a decrease in the average value of purchased items, and increased probability of return”. These authors continue stating, however, that “the effect sizes are generally small, and we conclude that factors such as legislation and competition often force e-tailers to offer free delivery and free returns”.

The identification of “structural relationships between aspects of online store image and purchase intention” [36] has also been studied. Yet other studies have analysed how “online social media have revolutionized communications and consequently the marketing of tourism destinations and businesses” [37], seen to be high involvement activities.

Cheng and Teng [36] go beyond market forces, in turn, having “demonstrated that enjoyment and familiarity are predictors of ease-of-use and settlement performance, respectively. Settlement performance and usefulness are positively related to purchase intention”. Thus, website design, advertising and publicity are, perhaps not surprisingly, deemed suitable solutions to increase e-commerce. Sotiriadis [37] stated that “electronic word-of-mouth (e-WOM) and online reviews/recommendations are increasingly used regarding tourism services that are high involvement services”; digital communication is, however, these researchers concluded, only another marketing channel, which needs to be used effectively by professionals, in conjunction with other marketing tools.

Sumita and Yoshii [38] stated that: “The potential of the Internet has been expanded substantially by a new generation of mobile devices, opening the door for rapid growth of m-commerce. While the traditional PC access to the Internet continues to be vital for exploiting the advantages of the Internet, the mobile access appears to attract more people because of flexible accesses to the Internet in a ubiquitous manner. Accordingly, e-commerce is now in the process of being converted into m-commerce.” Thus, enterprises should prepare their online presence for both types of access – fixed and mobile – in view of the increasing mobile phenomenon Worldwide (including smartphones and tablets), the quality and costs of which are no longer prohibitive in many nations, so as to be open to as many partners and customers as possible.

Our study has aimed to be a little different in so far as it focuses on a specific region (Portugal and Spain, which make up the Iberian Peninsula). We also aim to give more basic and perhaps more far-reaching suggestions, involving several actors, to increase e-Commerce levels in Iberia.

### **2.3. The crises in Portugal and Spain and the role of e-Commerce**

Both the crises in Portugal and Spain have been discussed quite extensively in the international media. Portugal initially emerged close to triumphant from its €78bn bailout program (granted in 2011) involving the IMF, EC and ECB (International Monetary Fund, European Commission, and European Central Bank), however news at the time of writing of possible sanctions to both Portugal and Spain, for not keeping to deficit targets, could mean an additional number of years of austerity to address the countries’ needs for deep-rooted change. Spain in particular has experienced exceedingly high unemployment rates, around the 25% level, causing much strain on the social security system.

Nobel Co-Recipient Douglass C. North [39] suggested that Spain and Portugal are alike in so far as they have [flawed] economies based on relationships rather than on merit and transparent exchanges. Invisible transaction costs are heavy burdens for these economies. Increasing e-Commerce transactions, on the other hand, will actually signal a change that, if successful, could represent a change in mentality towards a more objective environment where purchases occur due to favourable prices and quality perceptions, rather than being based on acquaintances and friendships and business contacts. E-Commerce, or electronic shopping, opens companies to the world and to the unknown, the unknown being a factor which Spain and Portugal have had difficulty in dealing with [40].

“The area of innovation and innovation activities includes numerous aspects and changes needed to increase and improve the innovation potential of firms. Besides technological changes, organizational changes also play a very important role.” [41]. We thus foresee that an increase in e-Commerce activity, with the organizational changes needed to achieve this, may profoundly affect the innovativeness of Portuguese and Spanish firms, with important organizational and economic spill-over effects.

## 2.4. Research question

The research question which this study aims to answer is: How may e-Commerce adoption levels be increased in Portugal and Spain in order to contribute to the survival and growth of enterprises in the midst of domestic crises? We answer the research question mainly, and in more depth, in section 3.3, but also do so in section 4.2, in this latter case resorting to colour images and key words (with BNML) in the discussion.

## 2.5. Adoption of electronic commerce in Portugal and Spain

Portugal is characterized as a society where profound change has occurred, especially over the last two decades, which has seen “the emergence of new values” [42]. Has “the aging of the population with an increase in the number of people aged over 65 years... [with] a fall in birth and fertility rates” [42] had a profound effect on e-Commerce adoption levels in Portugal? Has the “massive transfer to the tertiary sector” [42], away from the primary sector and from the industrial sector, led people away from e-Commerce? Are the low figures for Portuguese women dedicated to technical-scientific and administrative professions, the lowest registered in the EU, at 11% and 15.2%, respectively, of the active female workforce, testimony to a less-developed society [42] which shies away from e-Commerce?

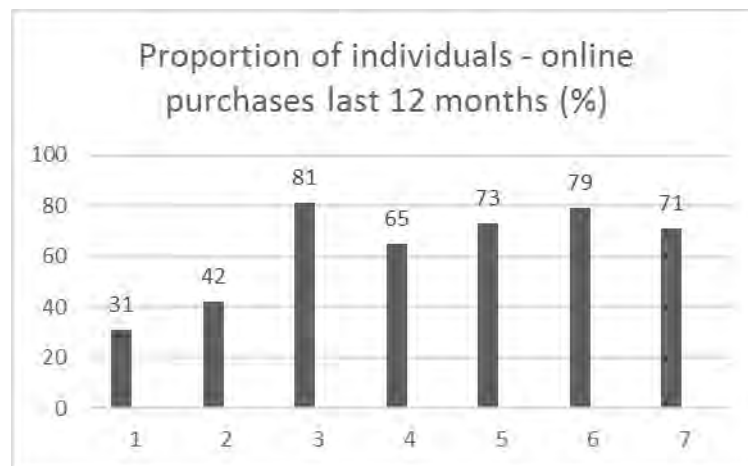
Conversely, the Spanish Kingdom, centred around Madrid, “has approached and overcome important challenges, risks, and changes in a very deep and widely spread democratization process” [43]. Spain is no longer isolated, from a dictatorship it has moved to being currently rather open, tolerant and decentralized, with European-minded people for the most part, though nationalist views still prevail in some quarters [43]. Deeply held Spanish beliefs include, however, “a bureaucratic approach: by observing as many norms and procedures as might be available because this is a strategic approach to avoid risks and uncertainties” [43]. Could this be a reason behind lagging e-Commerce figures in Spain, a desire for certain transactions without risk?

Several studies have been recently done, in both Portugal and Spain, regarding the use of the Internet for e-Commerce and e-business purposes. The results obtained, for example, by Lini [44, 45], Netsonda [46] and the European Commission [47] claimed that there is a lack of comprehension of the motives for low levels of adoption to e-Commerce in these two countries, though we recognize that some indicators show a somewhat positive trend.

Along with governmental innovation plans, private companies also made their investments, mainly in public Web portals, with information regarding products and services as well as online sales and online service and support to direct customers [47].

A total of 16% of Portuguese companies have adopted the Web as a new commercial channel, against 10% in Spain and 12% in the EU. For these companies in Portugal this channel represents 12% of total income, against 10% in Spain and 13% in the EU – which is in fact difficult to understand, regarding the percentage of companies selling online. Also, the percentage of Portuguese organizations buying on the Web is 19% against 18% in Spain and 24% in the EU [47].

According to the European Commission report [47], 55% of all Portuguese enterprises use applications for integrating internal business processes and in Spain this figure is at 52%, which is more than in the EU (41%). 32% of Portuguese companies automatically exchange business documents with customers/suppliers and in Spain this figure is at 12% (the EU average is at 26%). Regarding information sharing, 31% of Portuguese companies share information electronically with customers/suppliers in Supply Chain Management and in Spain this figure is at 14% (the EU average is at 15%). By including in this analysis Eurostat's "E-commerce statistics for individuals" study [48], one can observe that the percentage of Internet users in the EU that shopped online, in 2015, was 65%, while for the same period this indicator only reached 31% in Portugal and 42% in Spain (figure 1). Other percentages were 81% (UK), 65% (France), 73% (Germany), 79% (Denmark) and 71% (the Netherlands) (figure 1).



**Fig. 1.** Percentage of Internet users that have ordered goods or services over the Internet for private use during 2015 (Adapted from: [48]) (1-PT, 2-SP, 3-UK, 4-FR, 5-GE, 6-DE, 7-NE)

In figure 1 we can see that, as concerns business-to-consumer (B2C) purchasing rates over the Internet, Southern European countries such as Portugal (PT) and Spain (SP) are well below the UK, France (FR), Germany (GE), Denmark (DE) and the Netherlands (NE), which show a much more positive trend.

The Internet has very significant potential to strengthen markets by providing individuals and businesses with access to the EU single market, by making them more informed market participants and by making prices more transparent. However, the level of e-Commerce varies across Member States, and cross-border transactions are limited. 65% of Internet users in the EU now engage in e-Commerce (ordering or buying) but only 22% of those e-shoppers have ordered from other EU countries, according to the European Commission [47]. The main barriers to buying online are the perceived lack of need, security, privacy concerns, and lack of skills. Online businesses also face regulatory and practical barriers to cross-border trading. As a result, more than 60% of cross-border transactions cannot be completed because traders refuse to serve consumers abroad. However, a genuine Digital Single Market, an important source of

economic growth, is essential to stimulate the growth of businesses through larger markets and to provide consumers with more choice and lower prices. Ordering from the USA is also possible, for example, however this is more complicated than ordering online in the EU as it involves amounts which have to be paid in proportion to the amount spent, and depending on the item purchased online (taxes vary). Morais et al. [49] notably provides a review of the principle models in e-Commerce.

### **3. Data collection and analysis via a focus group**

Aiming to answer the research question mentioned above and in order to envision a way forward for e-Commerce, in Portugal and Spain, we decided to start a focus group process, in which a number of specialists were involved.

#### **3.1. Methodology followed**

In order to gain further insights relating to the e-Commerce activities of Iberian enterprises, and namely into how adoption levels to e-Commerce could be improved, we conducted a focus group research project, a qualitative research method popular for being able to provide detail [50, 51].

Focus group research involves gathering a group of carefully selected individuals (i.e. not randomly selected) to discuss various topics of interest [33]. In our case eight individuals were selected (following a Curriculum Vitae analysis which we performed), the group thus having an appropriate size within what is deemed fitting – namely between six to ten members [33, 50, 51] – not too big a group so as to be unmanageable, yet big enough to gather interesting and relevant input.

The selected focus-group members belonged to both the academic and the enterprise Worlds of Portugal and Spain.

The group members were gathered together on several occasions, mainly in Lisbon, Portugal and in Vigo, Spain and in all cases the necessary privacy was guaranteed, as was required by our endeavour [51].

The main goal in using a focus-group approach was to use its elements to help us interpret and reap practical results concerning the consequences and implications of what we had found in our studies to date [50]. The sessions were audio recorded and transcribed, and the material used to deepen our research. The resulting document was sent to participants for revision and validation [52]. The research project plan followed can be seen in figure 2.

The focus group members did not receive any payment for their collaboration, which occurred in an environment of considerable e-Commerce knowledge sharing, during three separate focus group meetings, leading up to the final discussion and creation of the e-Commerce adoption strategy proposal. The “multiple voices” [53] of the focus group participants provided the lead researcher and moderator with further recommendations even after the group had come together and this is seen to have been a rich and highly rewarding research experience, as the participants admitted to having learned from the interactions, which originated new ideas and reflections, much



as Remenyi et al. [53] suggests. Research bias may have occurred, due to the group setting, and due to individuals wanting to cause good impressions, but it is believed in this case to have been minimal, as no rewards were given to the participants and, furthermore, the individuals chosen to participate were independent of each other, both professionally and academically, as well as at a personal level.

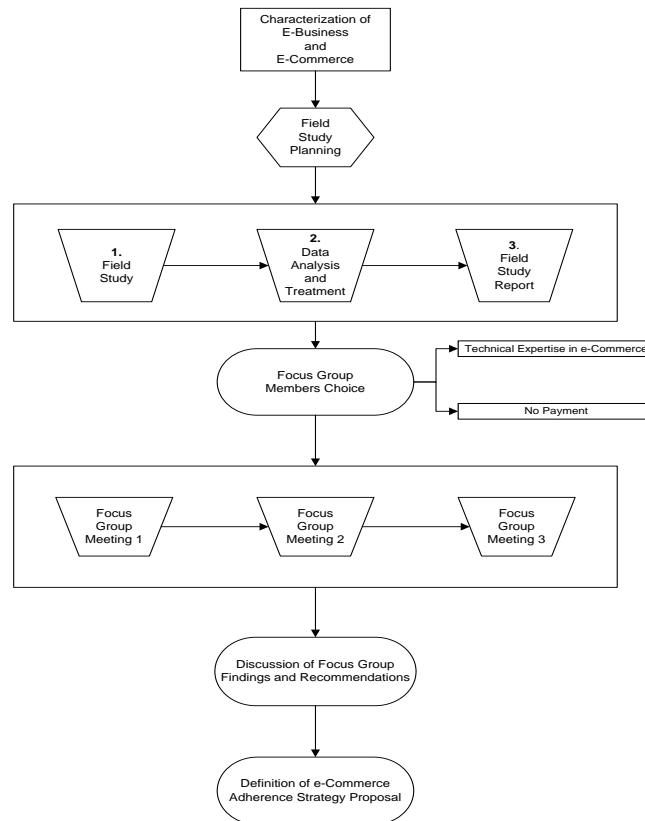


Fig. 2. Research project schema

### 3.2. Discussion of the initial focus group findings

As a result of a systematic literature review complemented with several discussion meetings between the project research team and the focus group, the question "How can one improve the adoption levels in Iberian e-Commerce?" was still unanswered. In order to proceed, several considerations were highlighted. By analyzing these considerations, it was clear that they could all be patterned according to social, business and technology dimensions (table 1).

**Table 1.** Focus Group High-Level Considerations

<i><b>Social</b></i>	<i><b>Business</b></i>	<i><b>Technology</b></i>
Privacy	ICT training	Security
Reputation	Expectations	Usability
Knowledge about e-Commerce	Experience with logistics	Maturity
Cultural issues	Support for micro and SMEs to create e-Commerce initiatives	Expensive and inadequate solutions
Fear of use	Response times to online customer support	Available software packages
Available information	Price	Software requirements
Promotion/marketing		

After the initial discussion on the considerations that would lead towards an improvement in e-Commerce adhesion, the focus group discussed what the positive or negative arguments were for each of these same considerations in table 1 – social considerations, business considerations, and technology considerations (please refer to tables 2, 3 and 4).

**Table 2.** Positive and negative arguments for the "social considerations"

<i><b>Social considerations</b></i>	<i><b>Positive</b></i>	<i><b>Negative</b></i>
Privacy	New regulations are being published in order to prevent personal data from being used incorrectly.	E-Commerce platform users still present several concerns regarding privacy policies and the use of personal data.
Reputation	An e-Commerce platform with a good reputation is more likely to retain customers and attract new ones.	If a given e-Commerce platform has a bad reputation, it is more likely that it will lose some clients and so additional effort should be made to reverse the situation.
Knowledge about e-Commerce	Given the high number of Iberian citizens with lower knowledge levels, there is an opportunity for companies supporting the referred platforms to overcome this fault.	The average knowledge about e-Commerce platforms is relatively low in both Portugal and Spain, creating a distance between customers and platforms.
Cultural Issues	Given the need for finding a gap in the Iberian culture that can be used as a new gateway for e-Commerce adoption, enterprises must become more creative and more efficient.	In both Portugal and Spain, a traditional culture still exists which affects the way people look at technological advances and at new "mechanisms" for commercial trade.
Fear of Use	This issue can be used by the enterprises supporting the e-	The fear of using new innovations or technologies

	Commerce platforms as a trigger to develop new partnerships in order to help in the creation of a social awareness on the e-Commerce topic.	is usually associated with more traditional societies where literacy levels are relatively low. As extensively traditional societies the Portuguese and Spanish societies tend to fear “the new” and “change” in general.
Available Information	By creating new mechanisms to increase the amount and the quality of information on their business, enterprises will also be improving their marketing and their management processes.	The quality and amount of available information regarding e-Commerce platforms and e-Commerce itself is very low and not easy to access.
Promotion/marketing	By recognizing the lack of breadth and effectiveness of both promotion actions and marketing campaigns, Iberian enterprises can direct their efforts towards thinking of new ways to get their marketing message through to all people.	Both in Portugal and in Spain, marketing campaigns still only focus on a certain niche of people, forgetting that all citizens may be possible customers (namely, potential customers exist across the globe and e-Commerce platforms can reach mostly all people; companies shouldn’t only focus on small, possibly local, regions).

**Table 3.** Positive and negative arguments for the “business considerations”

<i><b>Business considerations</b></i>	<i><b>Positive</b></i>	<i><b>Negative</b></i>
ICT Skills	If an enterprise has human resources with good ICT skills it is more likely that the e-Commerce platforms built by this same enterprise will be more complete, efficient, safe and more user friendly.	The levels of ICT know-how among the Iberian human-resources are not the most developed (when compared to e.g. Finland). This fact has to do with not only cultural issues, but also with the poor inclusion of ICT in scholar programs.
Expectations	The manner in which enterprises (and their products and services) are presented to customers may have effects on customers’ decision making.	When the levels of performance and efficiency presented by the enterprise’s products and services don’t match the customers’ expectations, they are more prone to negative choices.
Experience with Logistics	If a given e-Commerce platform presents an efficient logistics system, it is more prone to be successful.	Issues with logistics will increase the unattractiveness to customers of a given e-Commerce platform.

Support for Micro and SMEs to Create e-Commerce Initiatives	By taking advantage of the existent public and private support programs, enterprises can launch their e-Commerce initiatives with the required help and with expert guidance.	The number of public and private programs that may help Iberian enterprises to create e-Commerce initiatives is very low. Adding to this lack of support, there is also a complex administrative bureaucracy that creates several barriers to the availability of the already existent programs.
Response Times for Online Customer Support	When an e-Commerce platform has a customer support system that, in a quick manner, tries to respond to each customer's problem, it's more prone to be better reviewed and consequently increase its chances for new commercial transactions.	By presenting weak response times for customer support issues, companies are putting themselves in a fragile situation because it can be a bad example for others, with an impact on reputation. Consumers are increasingly expectant of fast responses to e-mails and e-messages sent.
Price	By not requiring a physical location for undertaking operations, an e-Commerce platform can supply better priced products to the market.	Given the globalization of e-Commerce, enterprises must be more aware of the products and prices offered by their competitors.

**Table 4.** Positive and negative arguments for the "technological considerations"

<i>Technology considerations</i>	<i>Positive</i>	<i>Negative</i>
Security	The constant improvement of security technologies has been helping the creation of new ways of doing business.	Despite the existent high levels of electronic security customers still present some concerns regarding this topic, mainly due to a lack of ICT knowledge about the known security faults that still happen and that may have serious consequences.
Usability	If e-Commerce platforms are built according to usability standards (including for the elderly), they are more prone to be more easily used by all, which will certainly result in the increase of the platforms' business volume.	By not respecting usability standards, an e-Commerce platform will be more difficult to use and less attractive and intuitive. These issues will most likely decrease the business volume and reputation of a platform.
Maturity	When an e-Commerce platform presents a considerable degree of	By having lower levels of maturity, e-Commerce

	maturity it will have undergone a path that included learning and adaptation stages, which will result in an increase in business performance.	platforms will have fewer capabilities to adapt to changes and new business needs. Of note is that in the digital world brand awareness is built very quickly (e.g. Facebook).
Expensive and Inadequate Solutions	By correctly specifying and developing technological solutions, they will supply business needs with much more efficiency and success at a lower human and financial cost.	When a solution is not specified with the correct parameters and with the right adjustments to the business needs, it can become expensive and inadequate to the point that it will not really help the performance of enterprise business processes.
Available Software Packages	The software market already offers some out-of-the-box software packages that just need small tunings and configurations in order to serve the technical and business requirements of a fully functional e-Commerce platform.	The majority of Iberian enterprises are small and medium enterprises with small budgets that, in their majority, aren't enough to buy and configure one of the existent software packages.
Software Requirements	Through an adequate analysis of software requirements inherent to the business, companies can, more easily and at a lower cost, make decisions on what is the software solution that better suits their needs.	An incorrect analysis of the software requirements may result in a poor choice of the software solution with the inherent costs and impact. Updates and maintenance will also be more difficult.

In order to reach possible solutions for the negative aspects presented above, the focus group had another interaction with the results presented in section 3.3.

### 3.3. General recommendations and expected results following the focus group analysis

The focus group sessions resulted in a number of recommendations. These recommendations were also further developed after the group had dispersed, as contact with the moderator was maintained by the focus group participants, and certain issues researched.

#### Social recommendations

- What laws regulate my business sector?

- E-Commerce presents important issues regarding the applicable jurisdiction, as they often involve difficult-to-resolve legal issues, such as those issues related to taxation (e.g., VAT – Value Added Tax) and import duties (e.g., when importing goods from the USA into the European Union, bought for example on e-Bay) – which are not always evident and transparent for the paying customer – leaving room for improvement in this particular area (notifications could come up on the screen warning about specific additional costs involved with the transaction, rather than the e-consumer being surprised by extra costs, sometimes considerable, before being able to receive the goods he or she bought over the Internet).
- Is my company able to respect and follow the EU health and safety laws?
  - Mitigate the risk of using electronic procurement systems by educating target communities in the most appropriate channels and by providing content easy to understand.
- How is the availability of infrastructure services or providers close to my geographic location?
  - The bandwidth limitations of the telecommunications infrastructure are considered a serious constraint to the implementation and maintenance of Internet businesses. Significant disparities exist between the bandwidth actually available to organizations, and private consumers, mainly due to cost issues. This translates, for example, into longer waits which, in some cases, lead to the abandonment of the transaction, before completion, by the e-consumer. We suggest that a form of international financial support exist (provided, for example, by an international body created for that effect) to make sure that nations worldwide, and certainly in the Iberian Peninsula, have effective access to the Internet, which can be seen in some cases to be as important as satisfying other needs, possibly a step below access to food, water and medical supplies, however being important nonetheless; the democratization of the access to goods and knowledge, provided by the Internet, is very important, albeit at times not recognized as being so – and this needs to change.
- Can I access funding capital to support my business projects?
  - There is a need to motivate banks, venture capital companies and business angel organizations to address specific information associated with financial products that support SMEs, aligned with the programs developed by the associations to which organizations belong.
- Am I able to understand that e-Commerce is not just about sales?
  - Organizations must be informed on the multiple economic and organizational advantages of e-Commerce initiatives; as concerns this aspect, a road show could be put into effect (by a newly created governing body), whereby at major stakeholder organizations – worldwide, throughout Europe, or starting in Spain and Portugal – short 1-2 hour presentations could take place, providing important knowledge to businesses on e-Commerce.
- What are the methodologies that can assist me in implementing my business plan?
  - There are several strategy models aiming to carry out efficient and successful e-Commerce initiatives. Motivating organizations to learn the

facts on the existent e-business and e-Commerce methodologies should provide the much needed knowledge on how to plan and implement their initiatives.

- Is there a website with the information needed for my project kickoff?
  - By creating a web portal where each country's success cases and benchmarking data could be exposed, organizations might use that information to learn how to implement e-Commerce initiatives successfully.

### **Business recommendations**

- What should be the characteristics and features of my business?
  - E-strategy involves having a strategic e-intent (objective), e-vision (e.g., 5 years into the future), and e-mission (about which online customers and markets we are serving, including e-consumer profiles in each case). These processes should be developed under e-strategic management activity. With e-Commerce initiatives being pointed out as being a part of an organization's vision and strategy, they can have a profound and far-reaching impact in organizations. What needs to be communicated is the need to have an e-strategy, and an e-Commerce e-strategy department, which some companies are simply not aware of.
- Can I know how my competitors are promoting their initiatives and products?
  - There is a lack of knowledge on how enterprises' competitors are performing and how they are working. Studying the competition is a strategy issue, also called benchmarking, which is common practice in more developed nations, such as in the USA or UK, but which in other less developed societies is still not widespread "best practice". Thus, we suggest bringing companies in certain countries up-to-speed, on strategy issues, as e-commerce is ever-more strategic in nature, warranting extra training and enlightenment. An international body in charge of e-commerce, as mentioned above, would be ideal to perform this task.
- Is my company able to demonstrate the true value of its services or products?
  - By reducing waiting times, costs, increasing the possibility of access to products and services that otherwise would be virtually impossible for customers to obtain, combined with improvements in the overall quality of service and implementation of correct and efficient management practices, enterprises will be able to highlight the true value of their offer.
- Can I access a logistics system directed at my needs and that can be useful for my business?
  - The need for product or service availability increases when organizations implement e-Commerce initiatives. With this in mind, it is very important to use efficient logistics systems that can supply, not only the raw materials needed for the production stages, but also the final products or services to an organization's customers. The importance of logistics is often overlooked (certainly in businesses, but even in business schools and on

management degrees), as is the need for a qualified logistics manager – which needs to change for organizations to prosper in the digital world.

- Are there enough specialists in the market in order to help in the adapting of standard software solutions to the particular needs of a business?
  - Today's Iberia human-resources market has a number of specialists with the knowledge for quickly customizing standard software solutions to better meet business needs; having said this, qualified digital and software specialists tend to be better paid, especially if they have the required experience, than other technical professionals, so companies should be aware of this and make funds available for the human resource needs of e-Commerce initiatives.
- Due to the growing number of consumers accessing the Internet from mobile devices, such as smartphones and tablets, specific apps should be created for this effect – m-Commerce.
  - An example of how different approaches and expertise are needed for e-Commerce from fixed work stations (e.g., personal computers) versus from mobile devices (m-Commerce) is how Facebook decided to acquire Instagram, the latter being much better prepared for the mobile revolution, as it was made specifically for that end. The acquisition was very beneficial to Facebook as it had much to learn from the mobile access experts at Instagram (e.g., faster and easier upload of photos and videos from mobile devices) [68]. A similar approach should be followed by enterprises in the Iberian Peninsula, duly recognizing differences between e-Commerce and m-Commerce. Millennials, in particular, it has been reported, highly value being online 24/7 (i.e., with no interruptions), which means that m-Commerce will be used more and more in the future – people will buy while on the move, while in queues, while taking public transport, while waiting for airplanes at the airport, indeed in all sorts of different situations. The most valuable startup “unicorn” in the world – with a startup unicorn being defined as a startup worth more than 1 billion USD, and in the case of Uber having been valued at around 70 billion USD [70] – at the time of writing, is Uber, which, we may be reminded, comes down, at this moment in time, to an app which has opened up a new set of possibilities for personal transportation. The main reason Uber is possible at all is due to m-Commerce and to the very significant amount of smartphones with an Internet connection being used worldwide. This new paradigm, needless to say, is expected to grow, in all sectors of industry, and in every corner of the globe.

### Technological recommendations

- Is my Company able to implement a solid e-Commerce solution with a high level of quality and value?
  - By using high development and production standards and efficient quality control methods, issues such as quality, price, delivery times, support after purchase, transaction security, personal information protection, site



usability and accessibility, will be taken into consideration, and the provided solution will be richer in quality and value;

- Can I increase the efficiency and performance of the daily activities of my business by using software solutions?
  - In today's market, the range of available software solutions varies from simple and easy-to-use solutions to very complex solutions that require training in order to be used to their full potential.

#### **4. A road map of the way forward using BNML – The Business Narrative Modelling Language**

##### **4.1. Why use BNML?**

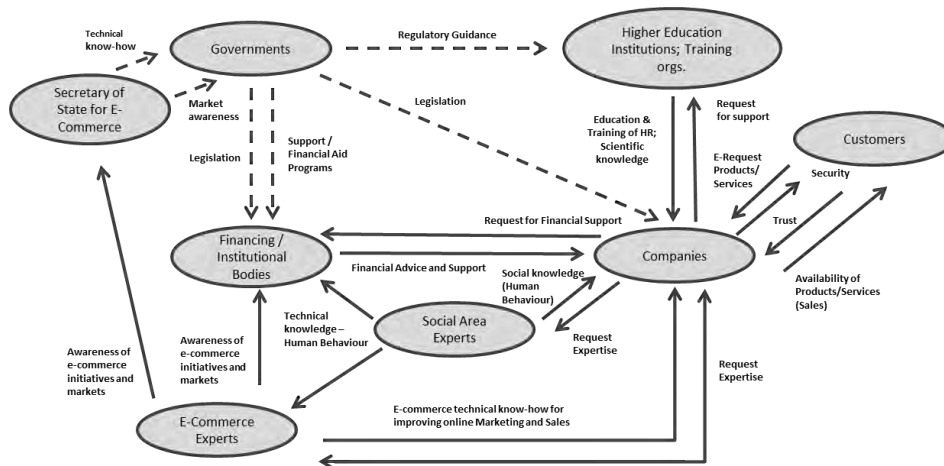
The Business Narrative Modelling Language – BNML – is a language which exists to codify a given context [54, 55, 56]. Qualitative research is especially given to the use of BNML as qualitative testimonies, gathered for example in face-to-face interviews or via interactions such as in a focus group, give rise to narratives which can, with some communication advantages, be represented pictorially. In terms of management and organizations, BNML can provide a unique representation of an organization's narrative – which can be linked to its business processes. When one considers a strategic path which needs to be followed, as in a road map, BNML is also an appropriate tool. Questions which BNML seeks to answer are: How is value built and how is value sustained over time? BNML is thus a novel framework for modelling value. "People use narratives to order their experience as they make sense of it." [57]. BNML is about stories and about involving people in events and relationships, over time. This was what we envisioned to happen in this study of e-commerce and which has the objective of improving adoption levels in Portugal and Spain.

##### **4.2. BNML and the study of e-commerce adoption levels in Portugal and Spain**

BNML is a language based on visual representations and on the narrative which was developed in order to aid qualitative research efforts, at times seen to be "more art than science" and lacking objectivity and rigor [58]. BNML offers a process of qualitative analysis which is quite standardized, making case studies and analyses more comparable. BNML makes use of existing ontologies and of existing game patterns, thus utilizing language from pre-existing pools, which will lead to a greater standardization across cases – rather than having authors search constantly for linguistic solutions for their representations, which may lead to some „reinventing of the wheel“, being very time-consuming in the process.

The first step in a BNML analysis is to map out the value network [59, 60]. Figure 3 shows the value network portraying how actors can improve on e-commerce adoption levels in Iberia. A total of eight actors, identified in the focus group interactions, can be

seen portrayed inside the ovals – from governments, which will play an active role by providing regulatory guidance, legislation, and financial aid; to customers, who are the end users of the e-commerce content and whose behaviour we also intend to change with our proposal (customers need to trust e-sales channels more, for example). In figure 3 the dashed arrowed lines represent intangible exchanges (that don't involve money changing hands or direct costs) while the continuous arrowed lines represent tangible exchanges which can have a monetary value attached to them, being thus represented in official accounting documents (for example, by providing security, which has a monetary value attached, companies gain the trust of customers, trust being an intangible). These exchanges were brought up in the focus group interactions. Note also in figure 3 the central role of higher education institutions and training organizations as well as of social area experts and e-Commerce experts. Companies will need to use all of the resources at their disposal to increase e-Commerce adoption levels in Iberia.



**Fig. 3.** Value network portraying how actors can improve on e-Commerce adoption levels in Iberia

In figure 4 we can see the tangible (involving grey ovals) and intangible (involving white ovals) delivery exchanges occurring between value network actors. The process starts with the customer interacting with companies which are online, the customer requesting products and / or services. Companies in turn can request support from a number of entities – Higher Education Institutions / Training Organizations, Social Area Experts, E-Commerce Experts or Institutional / Financing Bodies, who will respond accordingly. The focus of figure 4 is on the exchanges that occur in the value network, in a format which mirrors that which is represented in figure 3, emphasizing an interoperable communication effort for the common economic good.

An important aspect with BNML representations (figure 4) is how certain key words are emphasized, as deliverables (tangible and intangible) are exchanged over time: trust, security, e-requests, support from higher education institutions, product (stocks) and service (personnel) availability, social (e.g. after-sales) and technical (for accessible online platforms) expertise, education and training, social and scientific knowledge, e-

commerce technical know-how, financial advice and support, technical knowledge / human behaviour, e-commerce marketing awareness, legislation, regulatory guidance. These issues are central to e-commerce prosperity and growth in the Iberian Peninsula. By being aware of these key words a story regarding e-commerce can easily be idealised and communicated to key stakeholders who are involved in the process: customers, companies, higher education institutions and training organizations, social area experts, e-commerce experts, institutional / financing bodies, secretary of state for e-commerce, governments (figure 4 – please see the roles played by the various network actors).

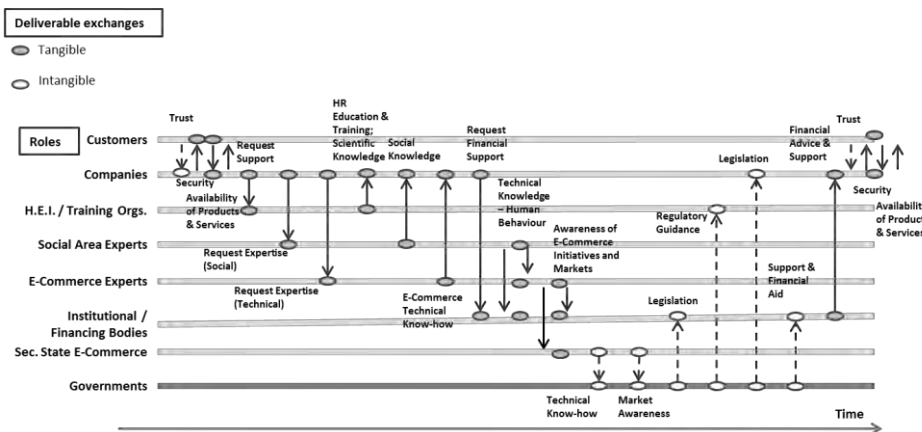
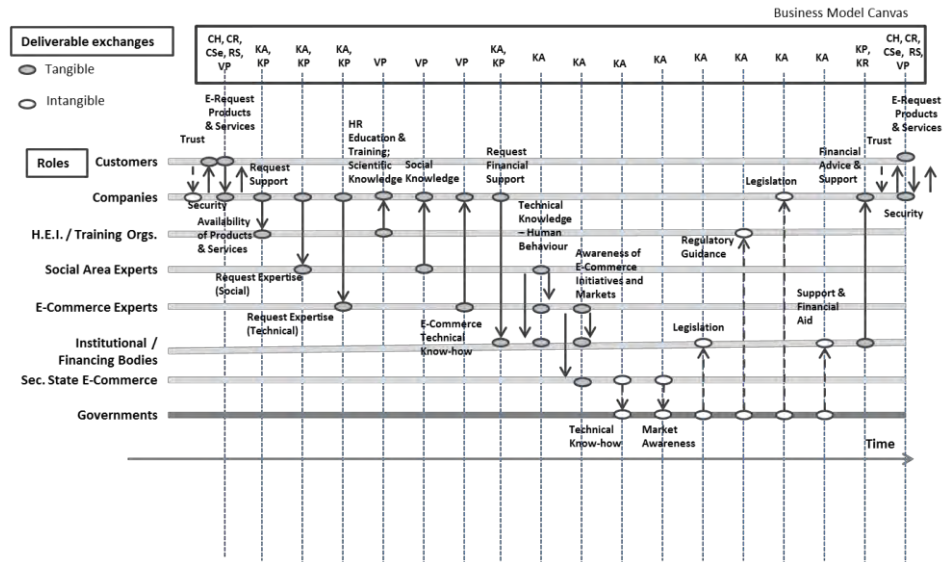
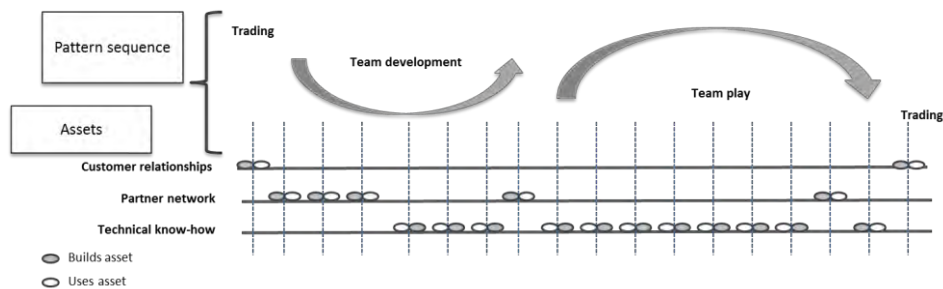


Fig. 4. BNML view of deliverable exchanges to increase e-Commerce activity

Figure 5 shows yet further what the process involves. Figure 5 is figure 4 with another swim-lane having been added. In the new top lane of data, we see Business Model Canvas [61] building blocks identified at each step of the process. The actual trading of goods over the Internet (visible at the beginning and ending of figures 4 and 5) is the step in the process which involves the most Business Model Canvas building blocks – Channel (Internet), Customer Relationships (based on trust), Customer Segments (represented by different sized wallets), Revenue Stream (the result of a successful value proposition), and Value Proposition (solving problems and satisfying needs). How the actors interact over time is also apparent, occurring along a pattern sequence. In figure 6, also part of BNML (figure 7 brings everything together), three main patterns were identified – Trading, Team Development and Team Play (taken from [62]). The pattern Team Development is an on-going pattern, indicated by the rounded arrow enveloping it. The same occurs with the Team Play pattern, where we see another rounded arrow encompassing the pattern. The pattern Trading, by appearing both at the beginning of the narrative and at the end, shows that it is central to a company's well-being.



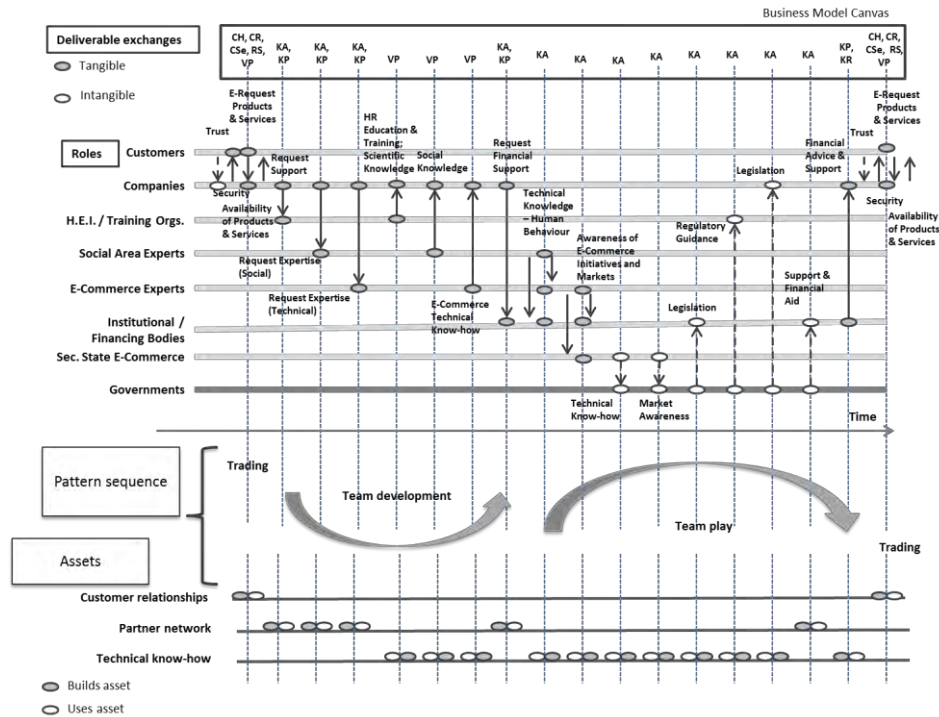
**Fig. 5.** Business Model Canvas variables added to the BNML Storyline view of how e-commerce adhesion can be increased



**Fig. 6.** Three different patterns (trading, team development and team play) and how they interact to use and build assets

BNML can be used, for example, as a tool to get young trainees and graduates up to speed as regards e-commerce initiatives – e.g., millennials, or people born after 1980, who are highly digitally connected, having lived with technology since very young ages, indeed currently upsetting an equilibrium in the job market in their favour, as compared to older individuals who are less efficient with technology [69]. In one short training session, say thirty to forty minutes long, a lot of what is involved can be communicated, with the advantage of the knowledge staying in one's memory for longer periods, due to the visual aspect of BNML. Youths (and other audiences) communicate ever more using images and visual representations [67] and BNML appears to take advantage of this

trend in society, whereby large pieces of text are unable to motivate and captivate the younger generations as images (and videos) do.

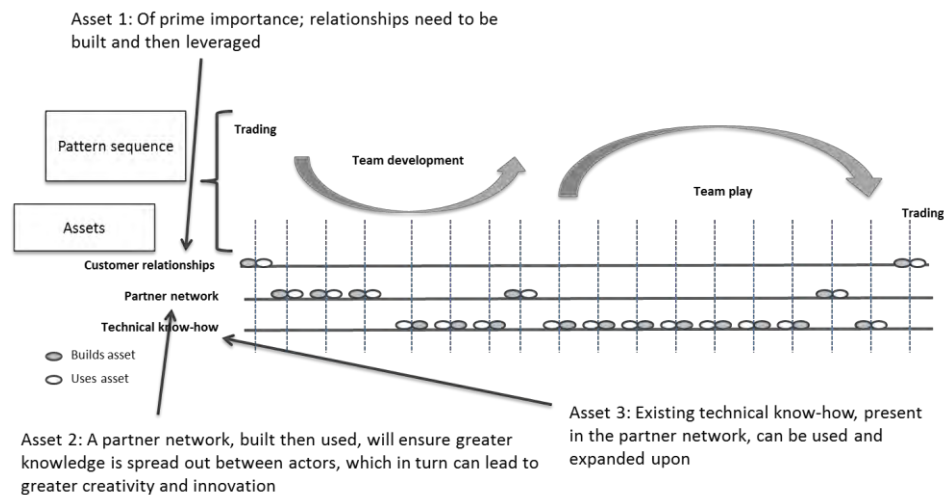


**Fig. 7.** BNML Storyline view of how e-commerce adhesion can be increased: various „swim lanes“ visible

Figure 8 shows how, in BNML's final „swim lane“, at the bottom, a set of assets are used and built. These assets are customer relationships, a partner network, and technical know-how. Note how there is a degree of causality in the building and use of assets in figures 6-7, as figure 8 shows. Asset 1 (customer relationships) exists initially and then leads to asset 2 (partner network). Asset 3, in turn (technical know-how), is essential for the value network to thrive. These assets come into being as deliverables, both tangible and intangible, and are exchanged in the network and between actors – note how in figures 5 and 7 we can see that customers trust providing companies which respond with secure transactions. Further down the line, Social Area Experts will provide technical knowledge of human behaviour (customer profiles, customer preferences, customer trends), which will keep the cycle of customer relationships in motion and growing. The patterns which describe the above are Trading, Team Development and Team Play – in line and repeated over time to keep the network alive.

BNML seeks to achieve deeper understandings of the story involved – the story in this case being about how to increase e-commerce levels in Portugal and Spain. Visual representations are a very old medium for telling stories – which can be very fulfilling – both for those developing them as well as for those reading them [63]. BNML has been

used in other instances to provide a road map for future strategic activity. In this case the BNML representations, resulting from our research, could be of use, for example, to the government officials responsible for e-Commerce, such as a Secretary of State – providing a basis on which to build new legislation and financing means.



**Fig. 8.** The causality between assets built and used made evident with BNML

E-Commerce is seen to be a function of a set of variables, as follows, where national culture (NC) and the environment (E) also play an important role:

$$\text{e-Commerce} = f(G, \text{SSEC}, \text{HEI}, \text{TrOrgs}, \text{Cos}, F, \text{SAE}, \text{ECE}, C) \text{ subject to NC, E}$$

Where the actors are G: Government; SSEC: Secretary of State for e-Commerce; HEI: Higher Education Institutions; TrOrgs: Training Organizations; Cos: Companies; F: Financing Bodies; SAE: Social Area Experts; ECE: e-Commerce Experts; C: Customers.

Our BNML representations, in figures 4, 5, 6, and 7 developed the above in what we see to be a friendly format, rich in communication value.

In sum, it is necessary to improve communication levels, establish partnerships, create financing channels, change regulation mechanisms, establish best practices, invest in e-marketing techniques and online relationship marketing, while employing the best human resources, providing training where necessary, in an entrepreneurial atmosphere [64].

## 5. Conclusions

Much as with other studies which seek to organize and simplify [65], we have sought to provide a framework with which to analyse e-Commerce adoption. After a review of

some of the existent literature and aiming to increase the success of e-Commerce investments, we conducted a Focus Group research project with Portuguese and Spanish specialists in various areas related to e-Commerce. This process began by analyzing the current e-Commerce situation and resulted in a set of recommendations (section 3.3 in this article) that, if implemented, could contribute to improve not only the Iberian e-Commerce initiatives adoption levels but also their return on investment. Nevertheless, the great diversity of options and multiple cases of success (and failure) suggest that the aforementioned initiative success may only happen if a proper combination of all the presented recommendations is made.

As a way to implement the presented recommendations and to increase Iberian e-Commerce initiative adoption levels, we have created a proposal designed to show a possible path aiming towards a not-so-distant future with regards to how to carry out good quality and highly successful e-Commerce initiatives. These guidelines were based on a group of key points that according to our research represent and cover the full spectrum of detected issues.

Considering the proposed recommendations for improving e-Commerce adoption that were presented, as a way to reach the key points highlighted, the following set of actions need to be carried out:

- Create actions to influence the governments of both Portugal and Spain to re-evaluate the legislation that regulates e-Commerce and the existent regulatory means, making any necessary amendments in order for e-Commerce initiatives to take place more quickly and successfully;
- Encourage venture capital organizations, banks and business angel organizations to create financing lines with better access conditions so that Iberian enterprises may undertake e-Commerce initiatives with the required means;
- Encourage European institutions of higher education to create partnerships with Iberian enterprises in a way that the technical know-how in these enterprises could be mixed with the scientific knowledge of those institutions, leading to a certain increase in the efficiency of the product development and sales stages;
- Create, alongside with training organizations and universities, a set of new training courses directed at the Iberian enterprises' staff that may help, not only the technical collaborators to develop their skills and to learn new methodologies and ways to carry out their tasks, but to also help the enterprises' administrators and managers to develop their managerial expertise and their human-resources skills.

By following the recommendations presented and using the proposed strategy, Iberian enterprises should be able to increase not only the adoption levels of their e-Commerce initiatives but also their profits.

Learning cultures need to be created that contribute positively to a firm's sustained success (with innovation) and the hierarchical learning culture, as found in Portugal and Spain [40], shows a preference for the creation of knowledge internally, much as the focus group interactions, described herein, suggest.

On the other hand, being available for distribution on the Internet means being available worldwide and competing with the best from the four corners of the world. It is very different to having a shop in a local community and serving only local customers. Notable examples, such as that of Portuguese unicorn Farfetch (with a valuation of one

billion euros), an online omni-channel luxury clothing marketplace, or that of tremendously successful Parfois, another very much internationalized Portuguese company [66] available in fully-owned or franchise-owned physical shops, or otherwise online, show us that the challenge is to become a global firm sought out by numerous customers who may even become a firm's "evangelists" – defending the brand and its products and services with great enthusiasm. For smaller countries, in a crisis, internationalization and e-Commerce in particular are inevitable steps towards survival, growth and profitability. Billions of euros in sales or in firm value is what is at stake – as Internet firms Facebook and Google have shown us. E-Commerce is a new paradigm – one that presents tremendous rewards but also tremendous challenges. Being available online means being shown side-by-side with the best products, services and brands (which have additional emotional value) available at a given time. As such, it needs to be taken seriously, and strategically, on the one hand by hiring the right human resources, with the right motivation and qualifications, while on the other it means "never going to sleep", as somewhere in the world consumers will be awake and online looking at your products. The task of professional marketers has thus become more demanding – but also more rewarding. Now professional marketers are able to know in real time who is looking at the company, for how long, at what products, and what is being sold in view of this. We with this article intend to show a way forward for ambitious firms as the rewards are too high to be turned away from. We are thus ourselves, in a sense, evangelists of e-Commerce – which, if taken seriously, will not damage the brand, but instead take the brand further, to new heights and returns on investment.

Much as e-Commerce (and more recently m-Commerce) is a *de facto* trend in business and society, so is the preference for images when communicating. Following this perspective, we have herein used, after several focus group interactions, not only text to communicate our findings, but also BNML pictorial representations. We hope thus to have shown a way forward for scholars and practitioners alike, whether part of the millennial generation or not, as companies search for new channels and ways to increase their top line (sales) – while being cost-effective in the process. The digital world continues to be more economical than human interaction, but this does not mean that quality should be compromised or that great differentiation does not exist between firms competing for online business. Firms should settle for no less than the best, and being online means that this is all the more true, now and into the foreseeable future.

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**Ramiro Gonçalves** is an Associate Professor with Habilitation at University of Trás-os-Montes e Alto Douro, in Vila Real, Portugal, and a Senior Researcher at INESC TEC Associated Laboratory, Porto, Portugal. Ramiro is currently the Executive Director of the PhD degree in Informatics and has around 150 publications (including book chapters, Scientific Citation Index journal articles, as well as publications in refereed conference proceedings) in the field of Informatics/Information Systems.

**José Martins** is currently at Invited Assistant Professor at the University of Trás-os-Montes e Alto Douro, Invited Assistant at the Polytechnic Institute of Bragança and Member of INESC TEC research center. He has published over 40 articles in indexed journals and event proceedings. Currently he is supervisor for several Master Degree dissertations and PhD thesis. During his research career, he has participated in several research projects and is currently a member of a research project aimed at studying the use, adoption and consequences of using IST to the tourism activities in Douro Valley. During his professional career José has also worked as an information systems and technologies senior consultant where he directly participated in several international projects. At the present time José Martins dedicates most of his time to his lectures and to his research activities where he tries to understand the variables and (in)direct impacts of ICT adoption at individual and firm levels.

**Frederico Branco** is Assistant Professor at the University of Trás-os-Montes e Alto Douro and Member of INESC TEC research center. He has published over 30 articles in journals and event proceedings. He is also involved in several academic works, as dissertation and thesis supervisor and degree projects responsible, and is continuously participating in several research projects. His professional career is also directly related with the industry, with particular focus in various planning and implementation projects of Information Systems, with particular attention on agri-food and services sectors.

Currently holds several functions of senior management in the areas of Operations, Information Systems and Quality Management.

**Manuel Pérez Cota** is Professor and Researcher at the state-owned university Universidade de Vigo (UVIGO) in Vigo, Spain. He is graduated with honors in Electrical Engineering (Universidad La Salle) and Electronics and Communications Engineering (Universidad Nacional Autónoma de México – UNAM, 1980), a PhD with honors in Industrial Engineering (Universidad de Santiago de Compostela, 1990). He is the director of the international research group SII-GEAC (<http://cuaatla.uvigo.es/si1-geac/>). He was the first director and developer of the Informatics (Computer Science School of the University of Vigo) and he was director, also, of the Informatics Department. He widely collaborates in different Master and PhD programs in Spain, Portugal, Germany, Argentina and Bolivia, and he has been supervisor in several PhDs, with some others in progress. He is part in different European and International projects. He has published quite extensively and has a lot of publications (including books, book chapters, Scientific Citation Index journal articles, and international journal articles, as well as publications in refereed conference proceedings). He is member of different international committees and associations (ACM, IEEE, AISTI, AIPO, ANALCT).

**Manuel Au-Yong Oliveira** is an assistant professor at the University of Aveiro, where he lectures on marketing and strategy, and is currently doing post-doctoral studies, linked to social responsibility and destination attractiveness.

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