

A literature review on firms' internationalisation through e-commerce

Riccardo Resciniti^{*}, Federica De Vanna^{**}

Abstract

The rise of e-commerce has brought considerable changes to the relationship between firms and consumers, especially within international business. Hence, understanding the use of such means for entering foreign markets has become critical for companies. However, the research on this issue is new and so it is important to evaluate what has been studied in the past. In this study, we conduct a systematic review of e-commerce and internationalisation studies to explicate how firms use e-commerce to enter new markets and to export. The studies are classified by theories and methods used in the literature. Moreover, we draw upon the internationalisation decision process (antecedents-modalities-consequences) to propose an integrative framework for understanding the role of e-commerce in internationalisation.

Keyword: e-commerce, international business strategies, literature review, entry mode decisions.

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Introduction

This paper develops at the intersection between two important drivers for firms' strategies: e-commerce and internationalisation. The objective of this paper is to identify major works on e-commerce and internationalisation research and thereafter to classify and identify the trends of publication, the issues and the opportunities for further research.

The concept of e-commerce has emerged since the second half of the '90s and is related to various themes, such as its importance as a channel, and its impact on consumer behaviour and on firms' internationalisation strategies.

Several studies have dealt with the definition of online or electronic commerce. E-commerce refers to the purchase and sale of goods and/or services via the Internet (Ramanathan, 2010). Parvinen et al. (2015) define e-selling as an activity that comprises the use of human-computer interactivity. E-commerce was first introduced in the 1960s and grew with the increased availability of Internet access and the advent of online sellers.

Unlike traditional trade, where consumers interact with salespersons, e-commerce involves online communities and reviews and user-generated content. In addition, products online are always available, and sites usually sell goods that are difficult to find in traditional stores. It has been argued that nowadays such a proliferation of channels for selling products and communicating with customers inevitably influences business models and consumer behaviours and demands (Aiello, 2017).

Today, e-commerce is the subject of various studies. For instance, prior research has linked its use to the development of faster and simpler internationalisation strategies and to its benefits even for small businesses (Sinkovics et al., 2013; Bianchi & Mathews, 2016; Johanson & Kalinic, 2016). Kumar et al. (2016) showed that the use of e-commerce from firms is critical in driving the remaining "bricks and mortar" to use the Internet to enter foreign markets. E-commerce research has focused on the role of multichannel and on the relationships between the channels themselves (Kushwaha & Shankar, 2013; Risselada et al., 2014), on privacy issues (Bart et al., 2005) and on the dynamics of online prices (Neslin et al., 2006; Verhagen & Van Dolen, 2009). Even more numerous studies have focused their attention on consumers and their decision-making processes in the purchase phase of online products (Guo & Jaafar, 2011).

Prior research has linked e-commerce to two elements: the benefits derived from it for both big and small business, and the help it gives to the internationalisation process. However, a closer look at the e-commerce concept reveals that it is associated with many inconsistencies. Studies show that

the Internet has a positive effect on firm information availability and the development of business networks in international markets, as well as an improvement in firm performance (Mathews et al., 2012; Bianchi & Mathews, 2016). However, accumulating such resources is not enough to achieve a competitive advantage and investments in information and communication technology may not advantage firms (Camisón & Villar-López, 2014), as Internet technology is an easily imitable resource. Sedera and Dey (2013) show that the exploitation of Internet value requires embedding it in organisational practices and processes or using it together with other resources. Trainor et al. (2014) examine the value of technology resources and find that the impact of the Internet on other complementary capabilities positively influences firm performance because it affects customer retention and satisfaction.

Hilmersson and Johanson's study (2016), applying an internationalisation model to small and medium-sized firms, states that global business is rapidly evolving into a bilateral market (physical and virtual), with boundaries between the two becoming indistinct.

It is important to study the process and uniqueness of how firms behave in the context of e-commerce in order to internationalise. Although we are witnessing an increasing interest in this subject, the research is still fragmented. Contributions that have been offered over the years about the modalities by which firms enter foreign markets have been disparate, making it complex to address this topic from a single perspective. Pointing out the studies in the literature on the topic of e-commerce and internationalisation allows us to evaluate which are the most interesting subjects and what is the information that companies need in relation to online technologies.

The review aims to contribute to the existing literature on the subject, since e-commerce is still a field of research that is substantially valid and broad with respect to the research that has been conducted on the topic. In particular, an examination and classification of the studies that bind the topics of online and internationalisation seems useful given the possibilities that this tool offers to the breadth of action of companies of every size and the production sector.

The goal of this paper is to conduct an extensive review of the literature on e-commerce firms' internationalisation in order to trace the status quo of the studies on this subject and identify interesting new research areas. The main aim of the research consists of identifying papers on the subject, analysing the methods and theories used in the past, and finally summarising the findings using the antecedents-modalities-consequence approach. The main contributions include our identification of the research gaps in this context and our suggested directions for research. According to the classification of

previous publications, future researches should link the concept of e-commerce to the processes of adoption of IT technologies in order to implement strategies for international expansion. In addition, the problems related to the adoption of virtual channels by companies should be understood, especially as regards the necessary resources, disputes and integration.

The paper is organised as follows. First, we discuss the definition and scope of e-commerce for internationalisation. Second, we explain our review method for identifying and collecting the studies on e-commerce for internationalisation and summarise findings in several aspects. Third, we propose a theoretical framework for understanding firms' behaviour in this context and providing a basis for future e-commerce and internationalisation research. Finally, we discuss the implications, opportunities for future research and the limitations of our work.

1. Literature identification and collection

A literature review seems to be an effective approach for contributing to the structure of a research field (Easterby-Smith et al., 2002). The reviews are in themselves a valid contribution as they classify, consolidate the themes and allow to emerge unexplored research spaces (Gold & Seuring, 2011).

Our literature review focuses upon peer-reviewed journal articles in English only. To establish a time span, a starting point was set at 2004. This seems justified, as the beginning of the debate on e-commerce can be traced to this period (Ngai & Gunasekaran, 2007).

Library databases (EBSCO, Scopus and ScienceDirect) were used with a keyword search using the following important keywords: "internationalisation", "e-commerce", "online shopping", "e-business" and "digital marketing". As the main theme is the internationalisation of companies, the choice of the first keyword is linked to the topic of reference. It seemed appropriate to limit the research to the online subtopic as an entry modality. This seems to involve the use of more frequently emerging keywords (Verhoef et al., 2015) in this context.

To delimit the number of publications, empirical papers mainly addressing specific operational issues were excluded from the review (Srivastava, 2007). Similarly, highly technical work on topics about information technology systems was also excluded from the review. Research focusing on consumers was also excluded. This seems to be justified when considering the objective outlined, which concentrates on firms' internationalisation through e-commerce.

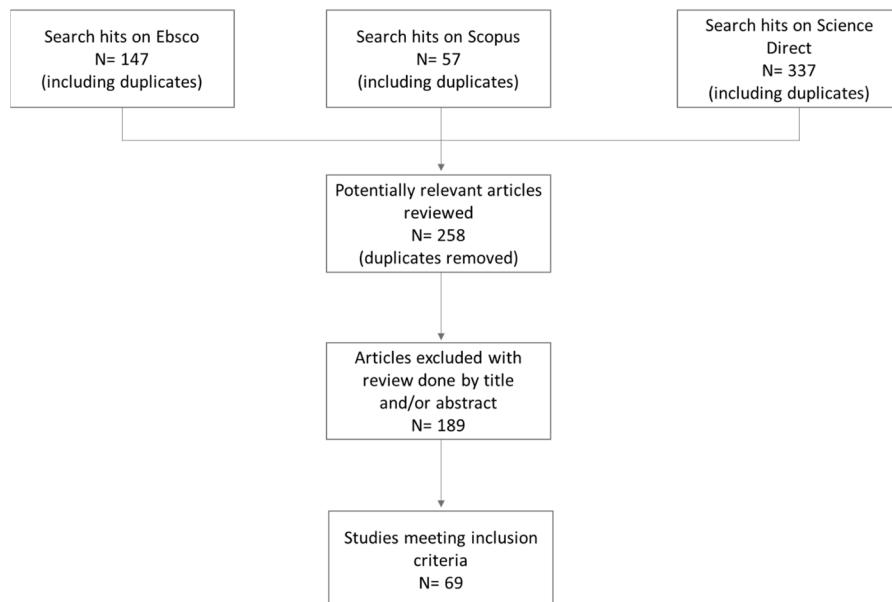
The article search yielded 541 hits for articles in total. Figure 1 shows a flow chart of the review process. After having identified the keywords necessary for the research, they were included in the three search engines indi-

cated by placing the keywords aimed at the digital with that on internationalisation. The items thus identified also included duplicates among the three search engines. Thus, they were rejected. The remaining 258 articles underwent a first analysis by title and abstract in order to evaluate their inherence in the specific topic. In fact, it was necessary to eliminate the articles more specifically related to the concepts of new technologies and artificial intelligence or relating to consumers and their decision-making processes. The remaining articles were analysed on the whole by evaluating the literature review, methodology and results obtained.

The choice of the articles consisted mainly of evaluating the titles, examining the abstracts and briefly reviewing the full text, in some cases manually (Zhang & Benyoucef, 2016; Ngai & Gunasekaran, 2007). Two selection criteria were used to select the articles: (1) focus on firms' internationalisation behaviour and (2) examination of the effect of virtual presence on internationalisation performance. This selection process allowed us to identify and collect significant peer-reviewed journal articles regarding firms' internationalisation by means of e-commerce.

This method is also consistent with Cheung and Thadani's (2012) work on reviewing the literature on eWOM communication, and Zhang and Benyoucef's (2016) work on reviewing the literature on consumer behaviour in social commerce.

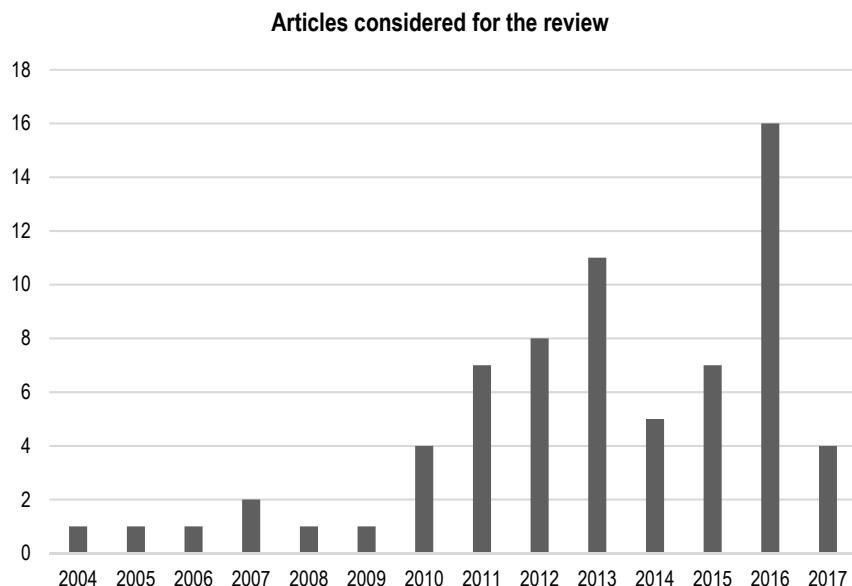
Figure 1 – Process of the literature review



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Finally, a total of 69 articles were gathered for our literature review. As shown in Figure 2, a lot of articles were published in 2016, so we believe that more studies are likely to appear in the coming years.

Figure 2 – Publication timeline of the literature



Before moving on to thematic analysis, we briefly review the selected articles to provide information about the sample (Gold & Seuring, 2011). The 69 reviewed articles were published in 27 different journals. Table 1 shows a list of the journals considered, suggesting that they have an interest in publishing in such an area. Of these, the *Journal of Business Research* featured the most (7 articles). *Decision Sciences* ($n = 6$) and *International Business Review* ($n = 6$) are the two journals with the second highest number of published articles.

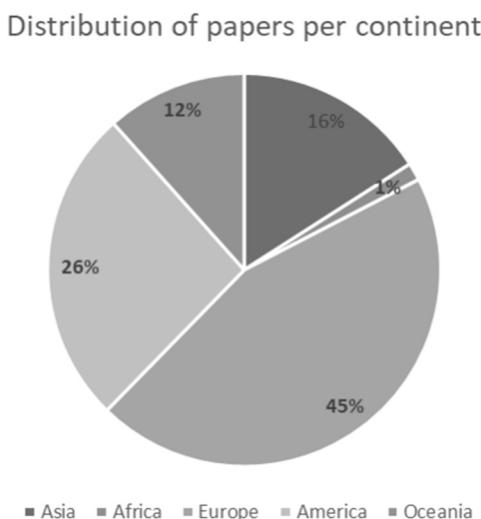
Table 1 – List of journals considered

<i>Journals</i>	<i>Number of articles</i>
Business Process Management Journal	5
Decision Sciences	6
Decision Support Systems	2
Economics of Innovation and New Technology	3
Electronic Commerce Research	3
Electronic Commerce Research and Application	2
Enterprise Information Systems	1
Information & Management	2
International Business Review	6
International Journal of Electronic Commerce	3
International Journal of Innovation, Management and Technology	1
International Journal of Management Review	1
International Marketing Review	2
International Small Business Journal	3
Journal of Business Research	7
Journal of Business Venturing	2
Journal of Global Marketing	1
Journal of Information Technology	2
Journal of International Business Studies	4
Journal of International Entrepreneurship	2
Journal of International Marketing	1
Journal of Internet Business	1
Journal of Internet Commerce	1
Journal of Marketing Management	3
Journal of Strategic Marketing	1
Management International Review	3
Social and Behavioral Sciences	1
TOTAL	69

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Figure 3 presents information on the authors' research affiliations. The dominance of Europe and America is predictable, given that these continents are more highly developed than the others. In particular, in Europe, many countries have already launched plans to digitalize businesses.

Figure 3 – Distribution of papers per continent according to the first author's origin



2. Review of the studies

To guide our review of the studies, we consider three major questions: (1) what theories were adopted? (2) what research methods were used? and (3) what important factors were studied to understand the role of e-commerce in internationalisation?

These questions are in line with the previous literature and are the right path for the literature review classification and synthesis (Hoehle et al., 2012; Zhang & Benyoucef, 2016). We discuss the first two questions in this section and the third one in the next section with the discussion of an integrative framework, in order to synthesise the studies.

2.1. Theories

We have analysed the theories recalled in the articles examined and have classified them into two different groups because of their issues. In accordance with the studies dealing with technology adoption and the risk perceived by firms in adopting such means, we recall (Kurnia et al., 2015):

- Diffusion Theory (Rogers, 2002): this includes several innovation characteristics such as relative advantage, complexity, compatibility, observability and trialability that may either promote or hinder the adoption of IT;
- TOE framework: this includes three types of factors that predict innovation adoption in addition to leader characteristics, internal characteristics of the organisation and external characteristics of the organisation;
- Technology Acceptance Model (TAM) (Davis, 1989): this investigates adoption antecedents such as social influences, perceived usefulness and perceived ease of use;
- Theory of Reasoned Action and Theory of Planned Behaviour (Bhattacharjee, 2000): both theories hypothesise that an individual's intention to shop/sell online is a determinant of that behaviour.

So far the cited theories have evaluated technologies in themselves in the sense of ease of use and perceived utility, while such studies should also pause to identify risks, commitments and costs perceived in terms of changes in the decision-making processes of the working group. The new skills required for such technologies can shift the internal balance of businesses. Furthermore, theories should also focus on how to implement online activities and integrate these concepts into the theories of internationalisation.

To understand firms' internationalisation by e-commerce, previous studies have adopted many theories. The articles show that transaction cost theory, the resource-based view and the OLI paradigm are the most widely adopted in the literature in relation to firms' internationalisation. First, there is an interest in investigating what firms' motives, benefits and values are in this setting, and theories such as transaction cost theory are used to explain these issues. The Internet enables the reduction of costs linked to orders (Brouthers et al., 2016) and it also eliminates the errors that frequently occur with human processors. Moreover, the overall cost of maintaining a virtual store is far less than that of a bricks and mortar (Verhoef et al., 2015).

Second, the resource-based view (RBV) links firm performance to organisational resources and capabilities. From this theory, it is how firms leverage their investments in IT and e-commerce to create unique Internet capabilities that determines a firm's performance (Brouthers et al., 2016; Schu et al., 2016; Xia & Zhang, 2010).

Third, some studies used the OLI paradigm in order to explain firms' internationalisation through e-commerce. The theory describes a corporation's choice of location and internationalisation method in relation to the specific advantages the company gains from foreign activities (Brouthers et al., 2016; Alcácer et al., 2016). It is argued that Internet and its infrastructures are specific resources.

We can see that most of the articles in question recall the theory of the resource-based view, as the Internet is often seen as a complex resource, easily imitated with regard to the basic facilities, but difficult to develop identically in different companies. The ability of a firm to benefit from the Internet in fact stems from the integration of the latter into the company, management capabilities and the presence of resources or dedicated IT units. Therefore, it seems necessary to dwell on the theories of acceptance of technology and above all on the theories of internationalisation to understand whether and how the decision-making processes of entering a foreign country, and the choice of the target markets and of the policies of standardization and adaptation have become changed.

Table 2 – Theoretical foundations in literature

Theories	Number of studies
Diffusion Theory	5
TOE framework	1
Technology Acceptance Model	4
Theory of Reasoned Action/Theory of Planned Behaviour	4
Transaction Cost Theory	4
Resource-based view	15
OLI paradigm	4

2.2. Research methods

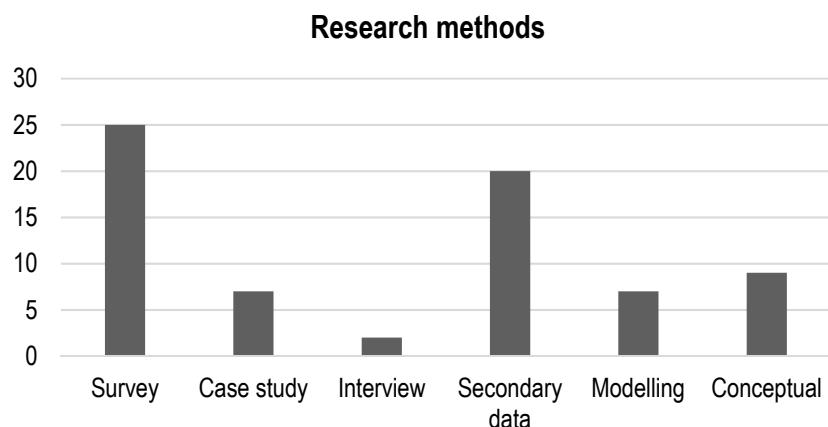
By analysing the collected studies, we have identified the research methods used to analyse the phenomenon of internationalisation through e-commerce (Figure 4). According to Hoehle et al. (2012), empirical methods can be qualitative or quantitative. Qualitative methods (e.g. the netnographic approach and focus group) analyse descriptive data in order to describe the environment. Conversely, quantitative methods (e.g. survey and experiment)

collect and analyse numerical data. Both of them have been adopted in the studies we collected.

In accordance with Kauppi et al. (2018), we classified the methodologies used into survey, case study, interview, secondary data, modelling and conceptual. Further, we can evidence that a high proportion of the studies adopted the quantitative survey method and secondary data analysis.

Qualitative studies that use interviews and case studies could be useful in the analysis of a still wide and dispersive field such as e-commerce internationalisation. Interviewing or conducting analysis of business cases of online firms and critically reflecting on their experiences could bring significant benefits to future research in the field of investigation. Numerous studies have conducted questionnaires on companies; however, as this field of research is still open and new, exploratory methods like case studies and in-depth interviews could fit the goals of researches better.

Figure 4 – Research methods in the literature



2.3. An integrative framework for e-commerce firms' internationalisation

To guide our review of the studies, we consider antecedents, modalities and consequences of firms' decision to internationalise by e-commerce. The first element deals with "why" the firm internationalises through online means; the second element answers the question of "how" the firm internationalises (how the firm uses such online channels); and finally, the third element refers to the performances of internationalising e-firms. Figure 5 depicts an overview of the framework. Details of its theoretical background and

important components and factors are discussed below (Elbanna et al., 2013; Carpenter et al., 2004).

Figure 5 – Framework for firm internationalisation in e-commerce



Table 3 depicts the three factors identified in our literature review and classifies the studies by the three stages of decision-making.

Table 3 – Stages associated with firm internationalisation

Stage	Definition	Number of studies
Antecedents	Firms' reasons to move abroad	21
Modalities	E-commerce as a new mode of entry	29
Consequences	Consequences of Internet use on businesses	41

The three described stages are presented in more detail in the following paragraphs.

Studies in the *antecedents* literature examine firms' decisions to use online channels to enter foreign markets. There has been a strong interest in the issue over the years, given the correspondence with the boom of the birth of online businesses. Previous research has attempted to extrapolate the theories of online channel adoption without linking it to the company's previous capabilities. In particular, such studies identify several antecedents that move a firm to adopt online channels to enter foreign markets. For example, Ajmal and Yasin (2012) find that the choice of e-commerce adoption by SMEs depends on several factors: organisation and management capabilities, development of technology, implementation, government support, and trust. According to Chen and Lamberti (2016), the Internet is a useful way to internationalise for small and medium-sized enterprises because of the reduced costs, the breadth of market coverage and because of the speed in obtaining information. Other authors (Mathews et al., 2012; Peltier et al., 2012) argue that an antecedent of e-commerce adoption derives from management capabilities and from the degree of innovation of the firm. Among the antecedents, information factors and cost reduction are important in affecting firms' market analysis activities. Export barriers may be reduced by the Internet simplifying internationalisation, particularly for small and medium-sized enterprises (Bell & Loane, 2010).

Mathews et al. (2012) point out that certain pre-market entry concepts, such as psychic distance, may not be as relevant on the Internet because this medium enables communication with the entire world regardless of economic, cultural and commercial differences. Furthermore, the Internet can be seen as an alternative, cheaper mode of serving distant markets.

Market responsiveness is another antecedent that refers to a firm's capability and inclination to respond to customer needs. The Internet offers speed advantages and enables firms to enhance their flexibility in responding to customer needs and developing competitive advantage (Prasad et al., 2001). Environmental turbulence refers to changes in the composition of customers and their preferences (Sinkovics et al., 2013). In a turbulent market, firms may use the Internet as an alternative path to internationalisation and to reduce uncertainties and risks (Pezderka & Sinkovics, 2011).

An interest to be developed in this area would be that of widening the theories in order to include these aspects as well as conducting ethnographic investigations on the spot. Searches could also evaluate the cost-choice relationship of the entry mode to analyse cases in which the option turns out to be the online channel.

The research stream about *modalities* highlights the changes and the online internationalisation modes of entry analysed in literature. Development and diffusion of the Internet, and information and communication technology, has had a significant impact on many areas. For companies, it created new channels for communication and distribution and has rocked the foundations of marketing theories, laying the basis for the birth of e-marketing (Gregory et al., 2007). The online channel allows the development of strategies for international expansion at reduced costs and in which the reduced entry times play a fundamental role in these cases, since the Internet is an easily accessible resource. Different scholars have argued that the Internet is a key platform for digital marketing since it includes wide access to global markets, low costs, seamless services and information, and better customisation skills (Skudiene et al., 2015). In the context of online internationalisation, the online channel can be a path for internationalisation to reduce export barriers and enhance customer acquisition (Gregory et al., 2007; Brouthers et al., 2016). E-commerce drivers such as a firm's product online transferability or e-commerce assets, and demand for e-commerce, have a significant, direct impact on export strategy dimensions.

However, several contributions to the literature highlight the fact that e-commerce has to deal with both different legal and cultural systems and certification requirements (Sinkovics et al., 2013). Some firms, due to online interaction, may perceive a reduced psychic distance between the countries. The risk is a "virtuality trap", that is, a mistaken belief that the virtual firm

can fill the gap about foreign markets more easily than traditional bricks and mortar (Sinkovics et al., 2013).

Time is an important determinant in the internationalisation process and is increasingly viewed as an important factor (Schu et al., 2016). Rapid virtual internationalisation typically implies better performances for firms in terms of growth and time (Schu et al., 2016). In the retail sector, evidence (Johanson & Kalinic, 2016) shows that online retailers internationalise differently and much faster than traditional bricks-and-mortar retailers.

Future studies in this area should link cost-time aspects in the online channel for international expansion. To this end, the analysis of secondary data regarding the types and number of entries in foreign countries through these methods is also a valid output.

The last identified research stream pays particular attention to *consequences*. By “consequence” we refer to a broader concept than income performance that includes all the effects on businesses of Internet usage and not just performance-related ones. We want to refer not only to income performance but also to financial, visibility, industrial accounting (cost-income dynamics) and organizational improvements. The studies have also focused attention on performance related to the increase in exports as a result of the adoption of Internet-related technologies (Bianchi & Mathews, 2016).

In this setting, it becomes important to consider factors associated with international presence, such as brands, costs, and the business and cultural distance (Bianchi & Mathews, 2016; Kim et al., 2017). Reuber and Fischer (2011) find that a firm’s resources, such as Internet technology, are essential in the pursuit of international marketing opportunities. Specifically, the Internet supports the international expansion of exporters, and increases the international market growth of firms (Bianchi & Mathews, 2016). According to Trainor et al. (2014), the Internet helps firms in developing two important export marketing capabilities: routines for gathering and interpreting export market information and decisions about distribution, customer services, communication and selling processes. Other ways in which the Internet can help improve export performance is by finding the right overseas agent, providing market intelligence to support export planning, and developing communications with new and current importers, suppliers and customers (Glavas & Mathews, 2014). Bianchi and Mathews (2016) argue that firms use the Internet to generate revenue by selling more to existing customers and by attracting new customers because the Internet has no physical or cultural constraints.

Many conceptual studies on the implications of the Internet for marketing have suggested that there are beneficial effects of Internet marketing on busi-

ness performance. Firm characteristics, such as firm size and prior experience, have a negative relationship with exporting firms' Internet activities; in contrast, exporting firms' IT capabilities and organisational innovation have a positive relationship with their Internet activities (Bianchi & Mathews, 2016).

Further studies should therefore analyse more deeply the consequences of the adoption of the online channel by companies from the point of view of the results linked to the increase in sales abroad with those related to the visibility of the company through the Internet.

2.4. Publication timeline and trends

In our review, we have categorised the studies under the framework of the antecedents-modalities-consequences approach. Figures 6 and 7 represent a summary of the publication trend for each thematic area (antecedents, modalities and consequences) (Chatha et al., 2015). In particular, Figure 7 represents the citation trend for the articles published in the area. This gives particular importance to the review by evidencing the interest of researchers in the field of e-commerce internationalisation, which is very sparse in literature today.

Figure 6 shows a sparse distribution of antecedents articles during the period considered, with a higher concentration between 2011 and 2013 and between 2015 and 2017, a less sparse and more homogeneous distribution of the modalities articles during the period considered, and a highly homogeneous distribution of consequence articles throughout the period. The number of antecedents citations (Figure 7) of the articles in question peaks between 2011 and 2012. In any case, the lower number of citations reported for the period 2015-2017 could simply be due to the fact that they were published recently. The number of consequences citations peaks throughout 2010 and 2013. This is a sign of what has been done and continues to be done in literature to identify the consequences of an opening to e-commerce by firms.

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Figure 6 – Publication timeline “antecedents-modalities-consequences”

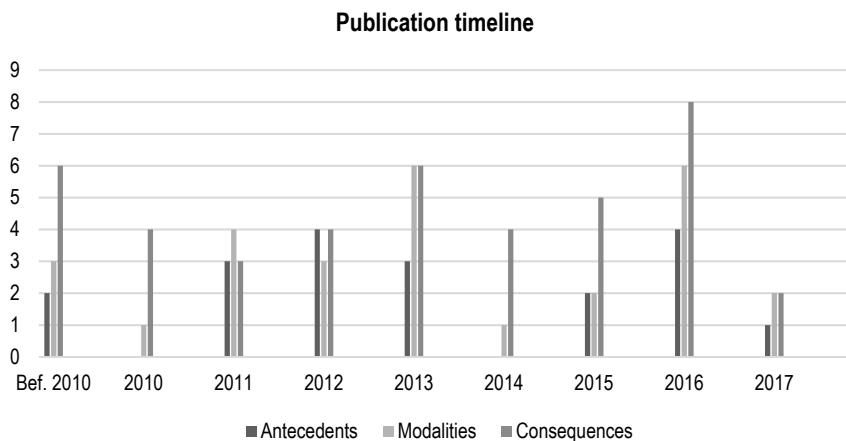
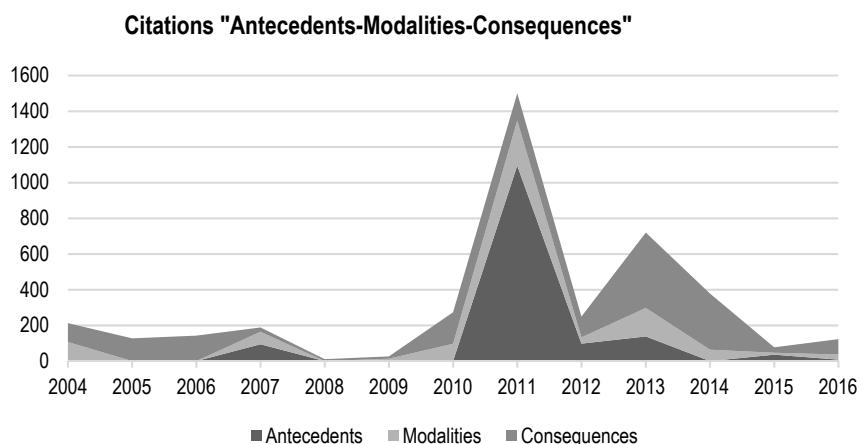
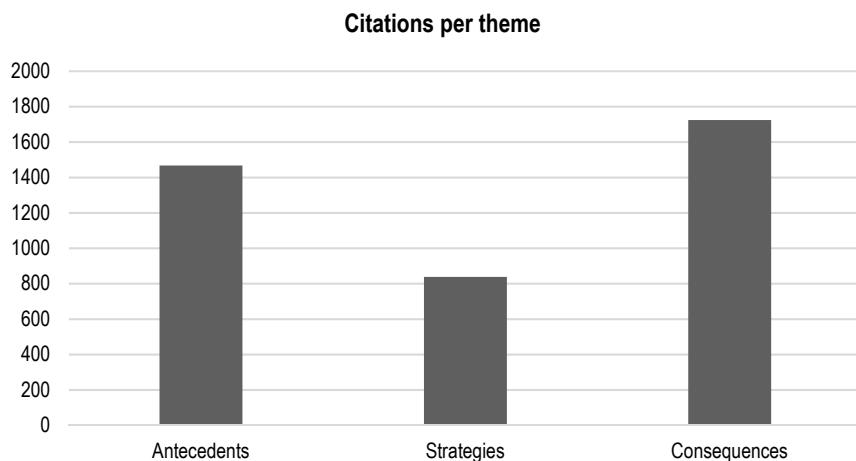


Figure 7 – Citations “antecedents-modalities-consequences”



Finally, we report in Figure 8 a summary of the total number of citations per theme. We can evidence that the majority of citations concentrate upon antecedents and performances, given the relevance of what drives firms to adopt e-commerce and what the results are of internationalisation through e-commerce.

Figure 8 – Number of citations per theme



Conclusions

The aim of this study was to identify and classify the literature on internationalisation and e-commerce to trace the status quo and allow unexplored research spaces to emerge. Our key theoretical contribution is the development of an agenda to guide future research on this topic. Given that research on this issue is new and largely fragmented, it is theoretically important to evaluate what has been studied and to derive meaningful insights through a structured review of the literature. A total of 69 journal articles were identified through a systematic and rigorous search in prominent academic databases and journal outlets. The collected literature shows an interest in the emerging area of e-commerce.

We adopted a systematic approach to identify relevant articles about firm internationalisation and e-commerce. We collected academic and peer-reviewed journal articles by selecting and searching different databases. In looking at the theories used in the literature to deal with the internationalisation process, we chose to use the antecedents-modalities-consequences approach in order to classify the literature (Elbanna et al., 2013; Carpenter et al., 2004). Finally, we traced a trend of the publications in literature about online internationalisation by cross-referencing data in terms of number of citations and year of publication.

Analysing the trends in research published with regard to studies on e-commerce, it is clear that their number is growing significantly. The trend in

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publications that deal with e-commerce and the internationalisation of companies is more unstable. Research on these topics is still in its infancy. Drawing on the research findings, e-commerce appears to be a strategic tool that plays an important role in internationalisation. The paper offers some suggestions on the different methodologies that can be used in the study of technologies applied to international companies. In particular, future research should focus on different theories for internationalisation by explaining the influence of online marketing decisions and market research entry.

We believe that our literature review and theoretical framework will contribute to the understanding of this domain and inspire more related research in the future.

We think that the findings of this study are the following. First, to the best of our knowledge, this is the first study to conduct a literature review on e-commerce use for internationalising firms. Since existing studies in this area are emerging, it is difficult to obtain a full insight into how e-commerce is used by internationalising firms and what the effects are on firms' performances. In this study, we provide an overview of the existing published work on this issue and analyse the research contexts, theories and methods. More importantly, we propose a theoretical framework to classify the studies. This has the potential to advance our knowledge of how firms use e-commerce, as well as to provide a prominent theoretical foundation for future research.

Second, our review identifies the journals interested in the issue of e-commerce for international business. It defines the methods and theories used in past qualitative and quantitative studies. The review shows the most cited themes by year and gives a representation of the evolution of this issue over the years.

In addition, the factors identified in our integrative framework are likely to help companies to better harness the power of e-commerce. The factors concentrate on content, network and interaction characteristics. It informs companies of the crucial roles of contingency factors, which may help them to realise when they can effectively leverage the marketing potential of e-commerce websites globally. The review may be helpful for firms in identifying useful strategies for firms that use or intend to use e-commerce to enter foreign markets. Firms can also understand the implications of their potential e-commerce activity by looking at the performance studies.

Finally, our literature review enables us to highlight some opportunities for future research. First, our review shows that most empirical studies use surveys and panel data analysis. In contrast, qualitative methods are relatively less widely adopted in the literature. This suggests that diversifying research methods in future studies may be useful for uncovering more and different empirical evidence with respect to firms' use of e-commerce means to internationalise.

Second, this study shows that several theories explain firms' behaviour in the field of internationalisation through e-commerce. The purpose of many empirical studies is to test theories and develop explanatory models. This is because e-commerce is a new area, where existing theories may be insufficient to provide an accurate and complete understanding.

Our integrative framework is an initial attempt to identify and classify previous studies. It would be interesting to investigate when and how firms move from one internationalisation stage to another and then to highlight the interrelationships between different stages and e-commerce use. In addition, firms do not actually need to follow the sequence (born-global firms). Thus, it may be useful to look into non-linear activities in firms' internationalisation processes within this context.

Limitations in association with this study, however, are unavoidable. The analysis comes down to the method used in order to collect the articles because it does not rely on sophisticated methodologies (e.g. bibliometric analysis) (Galvagno, 2017), although other international business reviews have also taken a similar approach in Italy (Resciniti & Matarazzo, 2012). The methodology used in the analysis of the articles and in the choice of the same is based on previously defined criteria, with particular attention to the keywords, the title and the abstract in the first selection phase. A random selection of the articles might have been more useful. Also, the review dismisses articles from conference proceedings and working papers. Since the analysis is limited to a defined time period (from 2004 onwards), the article does not deal with all publications on the subject of e-commerce and internationalisation.

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