Methodology of Research on Internationalisation Process of E-Commerce Enterprises

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The aim of this article is to review research methodologies applied to the research related to the internationalisation of e-commerce enterprises with a particular stress on the research resulting in the process description of the internationalisation of e-commerce firms. As a result of the critical analysis of the literature, qualitative methods were found to prevail in the research of the internationalisation of e-commerce firms along with the lack of the processual description of the internationalisation of such firms. The antipositivist ontology postulated by Welch and Paavilainen Mäntymäki (2014) seems to be the best approach to research on internationalisation process of e-commerce firms and is visible in interpretive perspective in methodology of already conducted research.

Key words: internationalisation process, e-commerce, methodology

Introduction

The article is aimed at the recognition of philosophical approaches to the research typical for management studies as well as research paradigms dominating the management studies. It has been assumed that the aforementioned approaches and paradigms can be transferred into one of the sub-fields of international business studies, i.e. the internationalisation of enterprises. Due to the particular interest of the author in the process description of internationalisation, assumptions of the process approach were identified (and, by contrast, the variance approach) to serve the process theorisation of the studied phenomena. An inspiration for the conducted review of methodologies of research on the internationalisation of e-commerce enterprises was drawn from the work by Welch and Paavilainen Mäntymäki (2014) where the authors paid particular attention to the reinstatement of the process nature of description of the internationalisation of enterprises.
Methodological Approaches to Research in the Science of Management and International Business

The management methodology draws from cognitive methods known in other branches of science; therefore, we can talk about the poly-methodology in management sciences (Sułkowski 2011). Certain philosophers of science postulate the working out of a method specific for the given discipline, making it possible to research a section of reality in such a manner that it is possible to present certain knowledge; it is the scientist ideal of cognition (Amsterdamski 1983). However, management scientists rightly observe that these sciences cover many disciplines (economy, humanities), which makes the congruence of methods inescapable (Płoszajski 1985; Czarniawska 1981). What is more, management scientists modify and adapt the research methods known from other disciplines so extensively that it is frequently possible to talk about, at most, being inspired by them in order to work out their own method of research (Krzyżanowski 1999).

The selection of a method should be determined with the paradigm adopted by a scientist, in the case of management sciences, originating from such areas of philosophy as epistemology or ontology. Epistemology looks for answers to questions about the relationship between cognition, recognition and the reality while ontology describes the reality, as it is (Guba and Lincoln 1994).

Depending on the adopted philosophy of the research of reality and assumptions resulting from the adopted paradigm, the way questions and conclusions regarding the reality are formulated differently. In the works of Guba and Lincoln (1994) and Sobh and Perry (2005), this issue is being considered with regard to four paradigms: positivism, realism, critical theory and constructivism. As the positivist paradigm prevails in management sciences along with the interpretive paradigm not discussed by the said authors, this article analyses these two approaches.

Knowledge of positivism is a statistically generalized conclusion referring to the population, formulated based on results of the statistical analysis of the observation of the easily accessible reality (Sobh and Perry 2005). It results from the verification of hypotheses that can be considered as facts or laws regulating the reality (Guba and Lincoln 1994). The positivist ontology assumes that the surrounding reality is true and comprehensible. Characteristics of a scientist include the naive realism expressed in the conviction that there are unchangeable mechanisms and laws regulating the reality, as well as...
the reductionism and determinism (Hesse 1980 in Guba and Lincoln 1994). The positivist epistemology assumes the independence of the scientist from the studied object, i.e. the scientist has no impact on the studied object and is not affected by it (Guba and Lincoln 1994). The characteristic objectivism also results from the harmonization of procedures and the method of observation of the reality; the scientist observes as if through a one-way mirror that guarantees impartiality (Sobh and Perry 2005). Irrespectively of the adopted philosophical perspective, typical research methods applied to attain the assumptions of the positivist paradigm include quantitative and statistical methods while the objective of the research itself is to explain the essence of a problem through induction and deduction (Sułkowski 2011; Guba and Lincoln 1994).

According to the interpretivism, knowledge is a result of subjective understanding of the reality while the reality is complex and relative (Hudson and Ozanne 1988; Sułkowski 2011). It is assumed that a scientist has no direct access to the reality, thus the acquisition of knowledge of that reality results from the accurate application of interpretive research procedures (Carson et al. 2001). Data are collected with the use of qualitative, non-structured methods and not to predict but rather to explain (Sułkowski 2011). Applied raw data collection methods include interviews (one-to-one focused group interview) and case studies. According to interpretive approach, the scientist freely uses his experience and previously gained knowledge (Levy 2007).

The collected data require some ‘processing’ (Miles and Huberman 1994 in Levy 2007) and should be used to prepare the ‘thick description’ or an accurate description of the studied phenomenon with a particular stress on the context of events (Geertz 1973) as a part of which the phenomenon is explored and understood (Carson et al. 2001).

Main objections related to positivist methods include their lack of flexibility (inability to introduce changes to the research structure while it lasts) and the limited usefulness for the study of processes (Sułkowski 2011), which makes their effectiveness and usefulness in the research related to social sciences doubtful (Sobh and Perry 2005). Weaknesses of interpretive methods include the lack of uniformity that hinders the comparability of results and the inability to study mass phenomena and processes. Due to the strong commitment and the lack of objectivism of the scientist, the reliability of results and the ethics of the scientist’s attitude may be impaired (Babbie 2003 in Sułkowski 2011).
Process Approach to the Research of the Internationalisation of Enterprises

Basic approaches to research in social sciences include the variance approach and the process approach. Differences between them result from different epistemological assumptions, tools used according to a given theory and phenomena they refer to. In particular, these differences are visible (Gabryś 2011; Welch and Paavilainen-Mäntymäki 2014):

- In the way questions referring to a phenomenon are asked;
- In the unit subjected to the analysis;
- In the adopted time structure of the research;
- In applied research methods.

Therefore, the variance model originates from assumptions typical for the positivism and is characterized by the question about what constitutes the cause or effect of the studied phenomenon. The answer to such a question explains what entry factors or independent variables cause the differentiation within the research sample. Hence, quantitative methods constitute the dominating method of research, in particular, the regression models in which variables analysed are independent from quantifiable time units. Therefore, the variability model allows for the explanation of dependencies between the variable X and variable Y but not for the capturing of a process-taking place between them. The fact that the cause X results in the consequence Y results from deduction rather than direct observation (Mohr 1982; Pentland 1999 in Welch and Paavilainen-Mäntymäki 2014).

Assumptions of the process model have their source not only in the positivism but also in non-positivist philosophies. The explanatory purpose is to get an answer to the question how and why the studied phenomena emerged, developed and ended in the given period of time. The process approach refers strictly to the definition of a process: it studies a sequence of events in time; therefore, an event is the unit of analysis. The identification and analysis of events is possible thanks to the application of research methods such as longitudinal quantitative methods (e.g. panel data models) quantitative methods considering the long-term perspective and multiple points in time (e.g. longitudinal case study, narrative analysis) (Van de Ven 2007; Langley 1999; Pentland 1999; Poole, Van de Ven, and Dooley 2000).

Irrespectively of the philosophical perspective adopted by the scientist, the greatest challenge related to the description of a process
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in line with the process approach is in the identification of the mechanism explaining the sequence of events. It is increasingly common to believe that the result of theorizing the process can be determined at a certain point of the continuum presenting different levels of power of the theory (Dawson 2003; Langley 2009; Rescher 1996):

• Weak – when the theory of the process is contained in the model describing individual phases of development;
• Stronger – when the theory of the process discloses the mechanism determining individual phases in the described model;
• Strongest – when the theory has its bases in the anti-positivist ontology originating from the metaphysics of the process.

Welch and Paavilainen-Mäntymäki (2014) criticized the previous research on the process of the internationalization of enterprises. In the most current and most extensive literature review so far (covering more than 200 works from nearly 40 years), they demonstrated that there is little research on the basis of which the internationalization of enterprises would be described as a process: only 27% of total research. They also suggested the introduction of six issues that should be considered in order for the future research on the internationalisation process to be more exhaustive and incorporated in the assumptions of the process model. These are:

• The expansion of the temporal boundaries of the enterprise internationalisation process thanks to the consideration of the phenomena of de-internationalisation and re-internationalisation (Welch and Welch 2009);
• Focusing the research also on further stages of internationalisation – up till now, changes taking place in an enterprise after its introduction to a foreign market were not analysed in most studies, contrary to changes taking place at the initial stages of expansion (Agndal and Chetty 2007; Morgan-Thomas and Jones 2009; Prashantham and Young 2011);
• The study of micro-processes taking place in the course of the internationalisation of functions, individual product lines, a team or branch of an enterprise (Buckley and Chapman 1997);
• The consideration of a wider range of data points on the growth trajectory – the sequence of introduction to foreign markets and the choice of the form of introduction dominating in the research were supplemented by Luostarinen (1980) who added the evolution of the product strategy described in the POM model (product – operation mode – market); the same author also called for the inclusion of a wider range of data points in the analysis;
• Non-linear internationalisation – deviation from the assumption of continuity of the enterprise internationalisation process that can be interrupted as a result of turbulences (Visaak 2010), crises (McGaughey 2007) or changes taking place in the enterprise in the course of the internationalisation, thus offering a wider context of the object of research (Nummela, Loane, and Bell 2006);

• Co-evolution that requires the internationalisation to be presented not only in a wider context but also with reference to the dynamics of that process.

The above-mentioned list does not include one of the most significant issues, i.e. the importance of longitudinal research for the theorization of the internationalisation process. The importance of dynamics in the understanding of export behaviours has already been mentioned by Reid (1981); in spite of this fact, McAuley (2010) continued to indicate the omission of time in the research as one of dimensions of internationalisation 30 years later. What causes such an attitude of researchers to this issue? According to Avital (2000) who interviewed researchers, the problem results from positivist research assumptions that preclude the introduction of the dimension of time to the research (Welch and Paavilainen-Mäntymäki 2014).

Therefore, how can the most popular research methods be improved in order to be able to formulate a theory of the process? It is possible to start with the introduction of time as a point of reference to collect and analyse data sources in the case study method (Blazejewski 2011). The combination of historical methods with methods known from the grounded theory (Burgelman 2011) or the narrative analysis (McGaughey 2007; Middleton, Liesch, and Steen 2011) also seems to be good solutions. Quantitative methods rarely observed in the research on the internationalisation such as the panel research can be effective in the formulation of the process only thanks to proper data analysis. To this end, one should use available modern methodological tools, e.g. agent-based simulation models (Anderson 1999).

The Review of Methods of Research on the Internationalisation of E-Commerce Enterprises

Both the foreign and the Polish literature contain few works regarding the process of internationalisation of e-commerce enterprises in the strict sense. The international research on the e-commerce sector is limited to the determination of differences in the prefer-
ences of consumers from different countries (Hwang and Jung 2006), limitations of internationalisation of e-commerce firms (Henari and Mahboob 2008; Abbad, Abbad, and Saleh 2011; El Said and Galal-Edeen 2009) or the influence of the e-business adaptation to sales increase and exports of traditional small and medium enterprises (Hinson and Sorenson 2006; Helgueros 2012). Additionally, factors are known that influence the choice of an e-business model and strategy of a firm (Chung-Shing 2001). The research by Polish authors also concentrates on consumer preferences of the Polish e-customers and do not discuss the internationalisation process (Kolny, Kucia, and Stolecka 2011; Jaciw and Wolny 2011). Most of such studies were exploratory and, at the same time, quantitative research methods and statistical data analysis prevailed.

Empirical research related to the internationalisation of e-commerce enterprises conducted so far is presented in table 1 with their methodology and research results. The literature review covers papers found in ebsco, Elsevier and Emerald databases excluding those in which the perspective of the network approach to internationalisation was adopted (i.e. Overby and Min 2001).

As we can see, the interpretive approach prevails in the methodology of research related to the internationalisation of e-commerce firms. Few studies aim at the clarification of dependencies between variables, which is typical for positivist attitudes (Kotha, Rindova, and Rothaermel 2001; Kim 2003). In most cases, researchers aim at the understanding of phenomena occurring in a wider context and describe them in the form of a rich, retrospective narration (Yamin and Sinkovics 2006; Foscht, Swoboda, and Morschett 2006).

However, none of these studies attempt to describe the internationalisation of e-commerce enterprises as a process. In fact, only two studies explain the characteristics of this process in relation to the U-model: Kim (2003) as well as Forsgren and Hagström (2007). Kim (2003) identified patterns and features of the internationalisation of e-commerce firms based on the research whose procedure was based on the variance model. Results show how the analysed firms internationalised their operations (when it comes to geographical distance, entry modes and sequence of entry to foreign markets), however, there is no answer why these and not other steps were taken (the author only makes presumptions). The historical data mentioned made it possible to observe certain paths and compare the speed of internationalisation of e-commerce firms with the speed of internationalisation of firms studied by Johanson and Wiedersheim-Paul (1975) as well as Johanson and Vahlne (1977).
To verify the relation between the internationalisation of individual firms taking part in the research and the influence of psychological distance on such internationalisation, a range of quantitative methods of data analysis were used. On that basis, it is indicated that the internationalisation of e-commerce enterprises are likely to be a process taking place in stages, however, without the distinguishing of such stages. Even though it should be remembered that the research did not aim at the process description but rather at the possibility of the application of the Uppsala model to e-commerce firms, the Kim’s (2003) analyses lack the issue of a mechanism applied between individual stages and the process dynamics while these components distinguish the U-model from other models of the internationalisation of enterprises (Welch and Paavilainen Mäntymäki 2014).

Forsgren and Hagström (2007) focused on the behaviour of e-commerce enterprises during their internationalisation as well as the degree in which such behaviour can be explained with mechanisms known from the Uppsala model. Therefore, we can see that Forsgren and Hagström (2007) go beyond the ‘economic approach’
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Table 1  Continued from the previous page

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<thead>
<tr>
<th>Author</th>
<th>Research objective</th>
<th>Research methodology</th>
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<td>Grant and Bakhru (2004)</td>
<td>identification of limitations of the internationalisation of e-commerce firms</td>
<td>(1) international strategies of e-commerce firms and e-business models</td>
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<td></td>
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<td>(2) exploratory</td>
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<td>(3) review of secondary sources of information, case study</td>
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<td>(4) review of secondary data</td>
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<td>(5) qualitative descriptive analysis</td>
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<tr>
<td>Foscht, Swoboda, and Morschett (2006)</td>
<td>determination of the dynamics of the internationalisation of e-commerce firm</td>
<td>(1) dynamic internationalization of niche-oriented small firm</td>
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<td>(2) exploratory</td>
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<td>(5) qualitative descriptive analysis</td>
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<td>Yamin and Sinkovics (2006)</td>
<td>determination of the influence of internationalisation of e-commerce firms on the disappearance of psychic distance and the appearance of a ‘virtual trap’</td>
<td>(1) perception of psychic distance in the internationalisation of e-commerce firms</td>
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<td>(4) in-depth interviews</td>
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<td>(5) qualitative descriptive analysis</td>
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<td>Forsgren and Hagström (2007)</td>
<td>confrontation of the process of internationalisation of e-commerce firms with the process described in the Uppsala model</td>
<td>(1) internationalisation behaviour of firms</td>
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<td>(2) exploratory</td>
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<td>(3) multiple case study</td>
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<td>(4) data triangulation</td>
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<td>(5) qualitative descriptive analysis</td>
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Notes: (1) research object, (2) research type, (3) research method, (4) data collection technique, (5) method of data analysis.

to the internationalisation that is limited to the explanation of the choice of a specific mode of entry to foreign markets and location of the production. The tradition of the internationalisation as a process is deeply embedded in the behavioural perspective, covering human behaviour and decision-making. According to this tradition, the internationalisation is conceptualised as a sequence of entries to foreign markets dependent on the path of internationalisation considered in time (rather than a sum of separate selections of entry modes) (Welch and Paavilainen Mäntymäki 2014).

Unlike the research conducted by Kim (2003), the research by Forsgren and Hagström (2007) is intended to be an introduction to the longitudinal research. It is true that the time horizon of the analysed research is limited (5 years) but the note about the longitudinal perspective offers prospects for the correct theorization of the process. Even though the philosophical position of researchers is not explicit, the adopted methodology allows it to be described as the
anti-positivist ontology necessary to attain the highest form of the process theorization.

The research method used by Forsgren and Hagström (2007) is the multiple case study whose goal (on this stage of the research considering the assumption of its longitudinal nature) is related to theory testing. Only one research question was asked, which results not from the adopted philosophical attitude or assumptions of the established theory but rather from the specific goal of the research: verification whether the Uppsala model reflects the internationalisation of companies whose business is related to the Internet. Therefore, assumptions known from the U-model were adopted and cases were analysed with regard to them.

The selection of cases was based on the variety criterion; the activities of all the firms studied is related to the Internet, however, the nature of assets, business model and the activity sector is different for each of them. The realization of the variety criterion is not systematic, i.e. the number of service and commercial firms is not equal, just like the number of firms offering a digital commodity or service. As regards the goal of the research, only the fact that the activity was related to the Internet and the internationalisation of the activity was material (Forsgren and Hagström 2007).

Secondary and primary data collected by researchers were used selectively in order to stress selected issues only; therefore, it is not possible to relate to the ‘depth’ of description of individual cases. Researchers were aware that the exploratory conclusions drawn by them could be used, at most, to formulate hypotheses for further research and not to test them with the use of the case study method (Forsgren and Hagström 2007).

Forsgren and Hagström (2007) also indicated the discontinuity of the internationalisation of analysed e-commerce firms and the limited incremental nature of the process. Reference was made to the role of knowledge, experience, risk and attitude of the manager as the motive powers of the internationalisation process; the role of psychological distance in the analysed process was also discussed. The authors also mentioned the co-evolution aspect. In order to be able to talk about an exhaustive analysis of the process, one should additionally recognize stages of the internationalisation of analysed firms and discover mechanisms occurring between them.

Conclusions

The approach to the description of the internationalisation of enterprises prevailing in the literature concerned with this subject is that
the internationalisation is treated as a process. As demonstrated by Welch and Paavilainen-Mäntymäki (2014), there are few studies in which authors managed to present the internationalisation of analysed enterprises as a process due to improperly selected research methods (that did not allow for the longitudinal frame of the process), poorly formulated questions or deficient interpretation of results (based on the variance model).

In turn, the process of internationalisation of e-commerce enterprises has only been researched by a few scientists so far (Forsgren and Hagström 2007; Kim 2003) and the perspective they adopted, i.e. in reference to the Uppsala model, slightly limited the extent of the analysis. It would be a much better to consider certain assumptions of the grounded theory, for example, the assumption of the lack of preconceptions (Glaser and Strauss 1967 in Konecki 2000). It is especially true in case of e-commerce firms where we have to do with two issues not encountered earlier: a digital product and the lack of borders in the virtual world. The combination of assumptions of the grounded theory with historical methods was also mentioned by Welch and Paavilainen-Mäntymäki (2014) citing Burgelman (2011) in the context of the use of data in the processual manner.

All combinations of research methods and techniques seem risky in the research on the internationalisation of enterprises, which is an area dominated by qualitative methods. As demonstrated by Welch and Paavilainen-Mäntymäki (2014), they can entail the loss of a processual nature of conclusions or theories. An example of the deprivation of an analysis of its processual nature can also be found in the case of the research on the internationalisation of e-commerce firms (see Kim 2003). However, there is no use to invoke the methodological ‘fundamentalism’ that restricts the research to the one and only proper methodology. Methodological reflection should be strengthened but methodology diverted from practice or from a specific research object will not offer expected results in the form of reliable knowledge. Therefore, the balance between the pluralism and stringency of research methods has to be retained (Sułkowski 2011).

Without the definition of a paradigm and philosophical sources of that paradigm, a researcher risks an incorrect choice or a failed mix of research methods. Each paradigm presents a partial view of the reality (Astley and Van de Ven 1983), which is why the synthesis of paradigms is not possible (Burell and Morgan 1979). However, the understanding of the essence of a phenomenon based on two perspectives makes it possible to notice what is unconscious; because of that, opposing paradigms can complement each other (Astley and
Van de Ven (1983). This approach is particularly important in the research on a multi-aspect phenomenon such as the internationalisation of enterprises. This process consists of a range of many processes, many of them opposing each other (Welch and Paavilainen Mäntymäki 2014). This is why the definition of the philosophical position should be the exit point when planning the methodology of research on the internationalisation of enterprises – in particular, related to e-commerce enterprises where the differentiation of the speed of the process may shaped by the ‘new’ product type, i.e. a digital product. The antipositivist ontology suggested by Welch and Paavilainen Mäntymäki (2014) is visible in methodology of already conducted research on internationalization process of e-commerce firms and seems to be the best approach to this research.

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References


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