An Empirical Study of Quantitative Research in Rapid Internationalization

Ying SUN

South China Normal University, Zhongshan Road West, No. 55, Tianhe District, Guangzhou City, Guangdong Province, China

Keywords: Quantitative research, Internationalization, Research design, Data.

Abstract. Quantitative research emphasizes to quantify the data collection and analysis, in order to systematically and scientifically investigate the properties and relationships of phenomena. This article critically evaluates the research design and data collection of an empirical study which probes the rapid internationalization phenomenon through quantitative research strategies. The selected articles are Accelerated internationalization: evidence from a late investor country.

Introduction

According to Pla-Barber and Escribá-Esteve, the authors’ purpose is to explain the key factors driving firms towards a more rapid internationalizing development in the new environmental conditions [Pla-Barber and Escribá-Esteve, 2006]. It has been clearly stated in abstract “this paper aims to offer evidence of the existence of a group of firms that use a speeded-up internationalization process.” The present research questions are “Can these different patterns of fast (fast internationalizing firms) and gradual process of internationalization (gradual internationalizing firms) be observed in a late investor country? More specifically, in such an environment, what factors determine the adoption of a more accelerated model of internationalization?” Explicitly, this research intends to compare empirical evidence whether the process of Spanish firms’ internationalization follows the same pattern as firms from other countries after Spain joined the European Union.

Conceptual Framework

The present study does not follow the ideal model and some of the section, such as research design, concept measurement, respondent selection and data collection are mixed up together. Hereby, it creates certain difficulties for the reviewers to evaluate these unstructured components. In the introduction of this article, the authors criticized the sequential internationalization approach and the incremental learning process proposed by the Scandinavian school. Greater international market integration, reduction of the cost of travel and communication, more widely available international managerial experience are making the internationalization of SMEs more rapid. After synthesized the previous evidence, the authors proposed a three dimensions index including speed, extent and scope to describe the degree of internationalization.

After a review on a series of literatures [Moen, 2002, Madsen and Servais, 1997, Vida, 2000, Welch et al., 1998] on key driving factors for the acceleration of internationalization processes, the authors classified three categories i.e. internal factors, external factors and strategic factors. The authors claim that this theoretical framework has represented the studies in veins of export development and internationalization, strategic management, network theories, and entrepreneurship. The conceptual framework can be perceived and visualized as following diagram:
Sources: based on the description of study two

Figure 1. The conceptual framework of study two.

**Research Design**

From the purpose of this study, it is a hypothesis testing study or from design point of view, it selects a hypothesis-deductive design which researchers commence with a questionable theory [Kellehear, 1993]. Since this research is based on a quantitative mail questionnaire survey at a single pinot in time without any manipulation of variables [Bryman and Bell, 2003], it picks up a cross-sectional research design. Although the authors explain its limitation at the end of the article, it does not clarify the reasons of such a design. The type of search questions and how the problem is defined determine the options to choose a casual or a correlational study [Sekaran, 2003]. According to the research questions above, the present study is a casual study to investigate the determination of adoption of rapid internationalization.

The independent variables here are internal factors, strategic factors and external factors; the dependent variable here is the degree of internationalization of the firm which encapsulates time elapsed since the firms were founded, until the first year of exporting (SPEED), percentage of exports (EXTENT) and the number of countries to which it exports (SCOPE). It is conducted in a noncontrived natural environment. Although the fieldwork did not have direct interference with the selected companies, the researchers deliberately consider the extraneous factors such as technologic intensity, sector and size of the firm influencing the acceleration of the internationalization process. The selected firms are units of analysis in which data are aggregated in data collection stage for the data analysis stage [Sekaran, 2003, Sekaran, 2000].

**Data Collection**

**Sampling**

As the authors delimit that their research to Spain, the research puts on some characteristics of studies in a Spanish context. According to the research notes, those researched firms are 100 percent Spanish-owned and 95 percent of them whose management teams are Spanish. The population of interest is those firms in Spain who fit in to the basis of certain criteria: the volume of sales for 1996 included at least 25 per cent of exports. Again, the authors eliminated those firms having isolated activities abroad. However, the authors do provide information about why they adopt such criteria and the present study does not introduce its sample frame. Without a good sampling frame, the non-coverage errors are undoubtedly occurred [Churchill and Iacobucci, 2004].

A stratified random sample was adopted which bases on the share of each industry in the Spanish Economy. The sampling strategies are said to be fairly representative in the population and it yields a size of 1500 firms. The stratification sampling design, commented by Sekaran, provides more information with a given sample size and shows more between stratum differences [Sekaran, 2003, Sekaran, 2000]. However, the authors devoted little explanation on the population description and
the stratifying criteria. In the UK, the Standard Industrial Classification (SIC) is normally for use in categorizing businesses according the type of economic activities, for example SIC'92 and SIC'2003 [ONS.UK, 2003]. At least, the authors should provide Spanish equivalents. Considering the provided sample, there is no educational and service industries which make this stratified sample problematic. Although the response rate after a reminder letter is still low (13.5 percent), the authors believe that it is effective compared to similar samples used in Spain. Non-response bias has also been evaluated.

In more detail, Hair et al (2003) argue that size of a sample depends on target population, the required sample type, time, budget, required estimation precision and degree of generalizable confidence and so on. However, this article provides not enough information for reviewer to judge whether 271 is sufficient sample size for the present study.

Data Collection Methods

The primary data were collected by mail questionnaires. In order to increase the response rate, reminder letter and questionnaires had been sent to the non-respondents. The authors believe that the managing directors or the company owners are key informants because they have appropriate knowledge and capability to answer the questionnaires. According to the study, the primary data have been cross-checked against company reports and other published data where possible. From the above description, it is not difficult to identify that the present study is over reliant on single respondent in each company and it does not generate various information from multiple sources. In the data collection process, no information regarding ethical issues are provided.

The Harmony of Question, Design and Data Collection

A cross sectional design is an ideal option for the present research questions which would provide an effective platform for hypotheses testing. Compared to longitudinal study and experimental design, a cross sectional filed work study is a cost-effective choice. Cross sectional design are the most widely used and popular design in social research and using statistic controls in this design can provide valuable information about casual process[de Vaus, 2001]. Marsh [1982] as cited by de Vaus (2001) concludes that the main threats to the internal validity of cross-sectional designs are: establishing cause without a time dimension and at the level of meaning. In order to improve the internal validity, the research adopts control variables which consider the correlation between a set of firms’ characteristics (e.g. size and sector influence) with the internationalization phenomenon and asking the reliable informants to supply meaning.

However, the biggest critique for the present research is over reliant on single respondent in the research and a lack of utilizing other data collection methods to generate primary data. Not acquiring enough secondary data for the research is another serious problem.

Findings and Suggestions

The most distinctive shortcoming in such a cross sectional hypothetical-deductive design is the imposed “outsider's view” on the research which originate from existing theories [de Vaus, 2001]. It will undoubtedly limit the research findings. Some internal factors, from the entrepreneurial perspective, such as multiple language capability, overseas experience, nationality, educational level were ignored by the research. Simultaneously, some external factors, such as institutional environment, domestic business environment have not been taken in to account yet. The research over relies on single informants in each company. Internationalisation is a dynamic process and the cross sectional design provides a relatively static picture. It will help to give some insight into the time order of variables. Therefore it is more likely to make casual inferences. However, a longitudinal design requires more time and resources. Therefore, a case study rather than a survey will be more applicable. A longitudinal case research is able to facilitate the research embedded in the research, setting and generating a boarder view.
References


