

Chapter 74

Impact of E-Commerce on Agricultural Business Success

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ABSTRACT

In an increasingly digital and competitive environment, it is important to understand the agricultural business' success in a digital economy. E-commerce appears as a potential strategic tool. The purpose of this chapter is to analyze the impact of e-commerce on agricultural business success in Portugal. Through a quantitative approach, data were collected by survey and a sample of 372 agricultural enterprises is obtained. The empirical results suggest a negative and significant impact of e-commerce on productivity. However, there is a simultaneous relationship between the e-commerce adoption and performance, both individually and globally. This study contributes to the addition of theory on e-commerce adoption, the impact of e-commerce on performance, and other determinants of the agricultural business' success.

INTRODUCTION

In an increasingly digital and competitive environment that agricultural enterprises cross due to the technological advances into the 21st century, it is important and becomes interesting to understand their success in a digital economy. From these technological advances arose a new form of trade - e-commerce as a potential strategic tool for agricultural enterprises to become more successful in a digital economy, as more and more information and markets are available to the consumer. Although many enterprises adopt e-commerce without knowing their impact (positive, negative or potential) (Leonard and Cronan, 2002).

To clarify the possible importance of e-commerce adoption and thereby increase the agricultural business success (ABS), in a digital economy, it is proposed this study. The study therefore addresses the following research question: what is the impact of e-commerce adoption on ABS? The following general hypothesis is formulated for this investigation: e-commerce adoption has a positive impact on ABS.

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This chapter aims to analyze the impact of e-commerce adoption on ABS in Portugal. For this purpose, the researcher has taken into account the potential endogeneity of e-commerce on ABS determination models. Previous studies have suggested models (e.g., Bertschek et al., 2004, 2006; Falk & Hagsten, 2015; Kubota & Milani, 2011; Liu et al., 2013). However, although e-commerce adoption may be a factor impacting the ABS, other factors may contribute to its success. In order to reach this objective, the author proposes an empirical study. In addition, this aim is achieved by performing the following specific objectives, in the context of agricultural enterprises:

- To verify possible relationships between e-commerce adoption and ABS, in multiple dimensions, in Portugal, in year 2014;
- To identify key factors that contribute to ABS in Portugal, in the period of 2014.

The present study may be relevant in a country - such as Portugal - for several reasons. Firstly, at the time of data collection, Portugal was experiencing serious economic crisis and e-commerce adoption by agricultural business could be a strategy for enterprises to grow, increasing productivity and improving performance, and, consequently, the extent of the potential economic growth. Secondly, another reason is due to the fact that Portugal is one of the European countries with the lowest intensity of e-commerce adoption by enterprises and weak business growth. This makes it interesting to analyze the impact of e-commerce in the Portuguese context. Thirdly, e-commerce in agriculture is an under-researched and scarce theme in Portugal. Finally, it may be important to discover and analyze strategies with impact on ABS, so that managers have more information available that can be useful to plan future strategies, in order to be more successful. In addition, agricultural sector is the focus of the author's interest.

This chapter can contribute to research on success, because it tests an ABS model, in various dimensions, based on a holistic approach. It can contribute to research on e-commerce, within the agricultural business in Portugal, because empirically it analyzes the impact of this technology adoption on ABS. The researcher believes that this chapter adding knowledge for development of agricultural sector for politicians, economists, managers, consultants and academic researchers, about key determinants of ABS, in particular, the e-commerce impact.

The next section contains the theoretical background and hypotheses of research. The section 3 describes the research methodology and the section 4 presents the results. The final section presents the conclusions, discusses some limitations of the research and suggests directions for future research.

THEORETICAL BACKGROUND AND HYPOTHESES

Agricultural enterprises, like the rest of the economy, have the challenge for changing their business model and practices (Henderson et al., 2000).

Success: An Overview

Success is a theme of interest in the scientific community that has allowed the development of studies over the years, and up to now, thus becoming a relevant and current theme. The research into business success covers different terms that have been used to refer to this phenomenon in different disciplines. "Success" is a broad term and therefore conceptualized in different forms. Success relates to the achieve-

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