

Chapter XII

The Influence of New Information and Communication Technologies on Transaction Costs of Micro–, Small– and, Medium–Sized Enterprises

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ABSTRACT

This chapter discusses the relationship between the use of information and communication technologies and transaction costs within micro, small, and medium-sized enterprises (MSMEs). The fundamental problem in this relationship is the asymmetric distribution of information. This asymmetry leads to problems such as adverse selection and moral hazards. Thus, the links between ICTs and the improvement of economic performance can be explained based on the capability of these technologies in reducing information asymmetries and therefore increasing firms' competitiveness. In the case of MSMEs, implementing new ICTs help diminish their frequent lack of information. However, the reduction of transaction costs and their better performance depend not only on the use of ICTs, but also on the integration of these technologies in the strategies and day-to-day activities of the MSMEs. For this reason, the training of the personnel and management is crucial when implementing ICTs in these firms.

INTRODUCTION

The links between new information and communication technologies and the improvement of the economic performance of enterprises can be explained based on the capability of these technologies in reducing information asymmetries. Due to the reduction of information asymmetries, it is possible to reduce transaction costs of the respective companies, which is reflected in their economic performance. Furthermore, the new ICTs increase the entrepreneur's negotiating power with his or her customers and suppliers as well as foster the creation of new business connections. From this, there is a contribution to the optimization of the competitive position of companies, which influences their commercial and economic performance.

All these benefits are derived from the adaptation of new technologies in the day-to-day activities of the firm and are perfectly applicable to micro, small, and medium-sized enterprises (MSMEs). In fact, it is within this economic sector where companies can profit most from the implementation of these new technologies. Implementing new ICTs enables companies to diminish the problematic lack of information they often face. In this way, these firms get stronger due to their inherent flexibility (owing to their own small-sized nature), and this in the end represents a differential advantage in the competitive world of business.

However, there is still a debate regarding whether and how the adoption of ICTs reduces transaction costs and improves firm competitiveness. Several empirical studies could not establish a clear correlation between the adoption of ICTs and performance indicators of the respective MSMEs.

This chapter provides the theoretical background and empirical evidence to discuss the relationship between the use of ICTs and transaction costs within MSMEs. It also analyzes different factors that could help interpret the

controversial results of empirical investigations, makes recommendations on how ICTs could be better utilized, and provides insight into future research trends.

THEORETICAL BACKGROUND

Transaction Costs, Economic Development, and ICTs

The transaction costs theory defined by Ronald Coase (1937) in his article "The Nature of the Firm" suggests that the main reason for establishing a firm was the existence of costs for using the price mechanism of the market. As opposed to the principles of Neoclassicism, Coase establishes that market information is not complete and that limited human mental capacity exists for its processing (North, 1995). However, the amount of information is limited mainly because the information spreads asymmetrically. This asymmetry constitutes one of the main reasons for high transaction costs, uncertainty, and therefore deficits in approaching the market. The proper use of ICTs reduces this distribution of inequality by producing the contrary effect, hence leading to the reduction of transaction costs and uncertainty as well as the increase of market efficiency.

Leff (1984) and Norton (1992) establish a clear correlation between transactional costs and development, and telecommunications.¹ Norton bases this relation on two facts. First, in many underdeveloped economies, there exists a lack of information due to its high access costs. Hence, these economies possess poor information markets, leading, as a result, to inefficient decisions. Second, when using telecommunication facilities, the information can flow easier, increasing the market efficiencies by improving the decision-making process and reducing transactional costs.

In an attempt to give a more detailed explanation of the relationship between telecom-

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