



Influence of organizational elements on manufacturing firms' service-enhancement: An empirical study based on Chinese ICT industry



Aifang Guo^{*}, Yuke Li, Ze Zuo, Guangpu Chen

School of Economics and Management, Zhejiang Sci-Tech University, Hangzhou, PR China

ARTICLE INFO

Article history:

Received 31 December 2014

Received in revised form

22 June 2015

Accepted 29 July 2015

Available online 15 August 2015

Keywords:

Servitization

Service-enhancement

Organizational elements

Manufacturing

ABSTRACT

Despite the growing awareness of the importance of servitization of manufacturing, relatively little study has been performed on how organizational elements may or may not enhance the value creation of manufacturing, and even less in the developing countries. The present study aims to bridge this gap by examining the impact of a set of organizational elements on the service-enhancement in a sample of ICT manufacturing enterprises in China. The results of a multivariate analysis indicate that the degree of service-enhancement (measured by product, customer and financial performance) can be well explained by five organizational elements (service technological capability, strategic orientation (including market and innovation orientation), organization design, and resources endowment). Therefore, it is necessary for firms to consider organizational elements in implementing servitization in manufacturing firms.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Service led competitive manufacturing strategy has aroused broad interest from academia, business, and even government [1], which is largely based on a belief that a move toward service will create additional value and add capabilities for traditional manufacturers [2]. Contrary to the economic benefits expected, firms frequently encounter problems orienting their industrial sales force toward these new organizational objectives [3,4], which is called “service paradox” [5]. Substantial investment in extending the service business may lead to increasing service offerings and higher costs, but not generate the expected correspondingly higher returns.

A growing body of research on service transition strategies cites the necessity of this transition. Service converts into manufacturers' core business inch by inch, which is attached with value activities originally [6]. Some pioneers conclude that servitization is a vital method to enable sustainable development for manufacturing firms [7]. Yet we still know little about what drives service transition's success or failure [8]. Some recent researches seek insights into the unique resources, strategies and distinctive capabilities that manufacturers need to transition effectively into

services [3,9]. However, the prior studies are mainly concentrated on the qualitative description of phenomena and still lack a systematic analysis framework. Moreover, most of the existing studies take developed countries and regions (e.g. USA; Australia; Hong Kong, China) as the background and few studies toward developing regions. This paper seeks to fill a gap in the literature by identifying organizational characters of firms who attempt to make the transition to service-led growth. Our work advances in this direction by theoretically and empirically examining whether some organizational elements have a positive impact on service-enhancement in manufacturing firms. Our empirical study uses data from 142 random samples of firms in Chinese ICT manufacturing sectors. The results and conclusions reached allow us to outline some practical recommendations for manufacturers interested in servitization.

The remainder of this paper is organized as follows. In the next section, we present the theoretical foundations related. Then we put forward some theoretical hypothesis and conceptual model concerning the organization elements on service-enhancement in manufacturing firms. We then go on to describe the data collection and methodology, followed by the empirical results. Lastly, we discuss the findings, implications and limitations of our research.

2. Theoretical foundations

2.1. Concept of service-enhancement

Research on service-enhancement in the manufacturing firms is

^{*} Corresponding author. School of Economics and Management, Zhejiang Sci-tech University, Hangzhou, 310018, PR China.

E-mail address: gaifang@zstu.edu.cn (A. Guo).

originated from the study on dynamic evolution of the service's position in the manufacturers. Under the background of knowledge-economy and globalization of economics, product economy transits gradually to a service-oriented economy, and more manufacturing enterprises use service to enhance the competitiveness of their products and harvest new value from service transition, which Western scholars name this phenomenon as the "service-enhancement" [10,11]. There are several similar terms such as "service-based value innovation" [12], "product services" [13], "value-added product" [14] and "Product-Service System" [15] which is defined as the result of an innovation strategy, shifting the business focus from designing and selling physical products only, to selling a system of products and services which are jointly capable of fulfilling specific client demands. Most of these concepts are from perspective of business strategy, focusing on the impact of service on manufacturing enterprises' competitive strategic choice and competitive advantage, which is a description of the results of services innovation. The core idea for these notions is that manufacturing enterprises seek to enhance their competitiveness of products by offering services to tangible products, and gradually evolving from a goods-dominant view to a service-centered view, which firms' intangible resources, such as skills, knowledge and competences will have a substantial role in marketing thought [16]. Thus, the nature of the service-enhancement is service innovation in manufacturing enterprises. Wu and Lin [11] define service-enhancement as a kind of approach, process and result that enterprises meet demands of customers by providing differentiated services related to tangible product, hence increase their competitiveness advantage. In this paper, service-enhancement refers in particular to describe the result of increasing the service intensity in the manufacturing business operation process, i.e. degree or level of servitization in manufacturing firms. It includes fundamental enhancement and promotional enhancement. The former places an emphasis on enhancement of service to product competitiveness, which service elements are embedded in tangible products, while the latter concentrates on creation of service value, which service offerings is regarded as a source of revenue. They correspond respectively with services in the support of the product (SSP) and services in support of the client's actions (SSC), which is described in paper [17].

2.2. Organizational factors enabling firms' service-enhancement

While there has been substantial research on the antecedents for successive service innovation in 'pure' service sectors, the literature remains relatively silent on necessary antecedents for the innovation of product-related services [18]. In business practice, manufacturing firms develop product-related services unsystematically.

Utilizing case study and qualitative analysis, researches make some exploration on the organization characters which may impact service-enhancement in manufacturing firms. E.g., Gebauer et al. [19] have investigated the success factors for achieving higher service revenues in product manufacturing companies. Through an extensive benchmarking project conducted with a variety of firms, they highlight that a clear service-development process and extensive knowledge of market conditions and customer needs have a positive impact on the service business. The criteria for selecting and innovating new service must be derived from the service or corporate strategy to ensure that corporate goals and customer needs receive appropriate service development focus. Yang et al. [9] have investigated what strategies the manufacturing firms conduct to enhance their value creation. Through four case studies, they conclude that high-valued service strategies vary according to the manufacturing service firms' industry context,

organizational conditions, and service itself. Employing single-case study, Neu and Brown [20] conclude that forming high-performing business services in product manufacturing firms stems largely from managers' ability to create internal alignment among several organizational factors that collectively "fit" conditions in the market. Through a multi-case study, Gebauer et al. [18] have found that involvement of frontline employees, information sharing, multi-functional teams, funnel tools, information technology, internal organization, presence of service champion, autonomy of employees, market testing, market research, strategic focus, external contacts, availability of resources, management support and training and education have significant effect on service innovations. Kastalli and Van Looy [7] have found that the ability of servitization to create value on the level of the product and the customer is more positive. Through nine in-depth case studies, Ettlie and Rosenthal [21] have identified factors of corporate culture patterns, sponsorship tendencies and chief executive sponsorship etc, which impact service innovation success in manufacturing firms. In particular, the literature points to a cultural and cognitive bias against services and service-specific values such as heterogeneity and flexibility, since these values contradict traditional manufacturing goals and practices such as standardization and efficiency [22]. Only a small number of studies use quantitative analysis. E.g., Antioco et al. [17] have conducted an empirical survey of 137 companies in Nordic countries to explore the organizational parameters and service business orientations that explain relative product sales and service volume of manufacturing companies.

From the existing studies listed above, we can find that the prior exploration of organizational factors that enable the formation of high-performing business services leading to service-enhancement in manufacturing firms still sticks on the phenomena description and generalization. Research on the influential factors that affect enterprise's service-enhancement has not formed an analysis framework yet. In addition, majority of the prior studies are based on interviews and case studies, which the external validity of the antecedents could not be assessed accurately. Research in this area would benefit from insights attained from quantitative analyses. Moreover, prior studies mostly concentrate on firms in developed countries and regions. There are significant differences between developed and developing countries in terms of the extent to which manufacturing has servitized [23]. Applying the results to other regions could further enhance the transferability and generalizability of the results. This paper seeks to fill a gap in the literature by identifying the main organizational factors which affect firms' degree of service-enhancement through quantitative analysis based on samples from a developing country, China.

3. Hypothesis and conceptual framework

Based on the present studies, this paper explores the systematic influence of internal organization factors on manufacturing firm service-enhancement, including technological capability, strategic orientation, organization design, and resources endowment.

3.1. Technological capability and service-enhancement

Whether specific service activity is carried out smoothly or not depends mostly on the advancement of technology. As an important foundation and tool, advanced technology allows manufacturing firms to make better use of labor, equipment and materials which result in financial savings and improvements in product quality and reliability, with information technology (IT) being an important backbone and enabler. Evidence demonstrates that IT have a relevant impact on value creation in that they bring superior responsiveness to operation processes and improve

Download English Version:

<https://daneshyari.com/en/article/375133>

Download Persian Version:

<https://daneshyari.com/article/375133>

[Daneshyari.com](https://daneshyari.com)