

Public Enterprises in the Era of New Technologies: A Market-Led Approach to Innovation

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Abstract:- This research explains the use of new technologies within the public enterprise through a market-oriented approach. The results we find identify two main sources through which public enterprises must innovate: a customer-oriented approach to innovation (understanding current and future customer needs) and a competitor-oriented approach to innovation (understanding competitor behaviour).

Keywords:- New Technologies, Public Enterprises, Market Orientation, Innovation, Technological Innovation.

I. INTRODUCTION

The business environment is marked by various changes that characterise the global socio-economic context. These changes are structural in nature (globalisation, trade liberalisation, rapid development of production, information and communication technologies, internationalisation of production, increase in the number of producers and competitors) and force companies to face many challenges (Mbam and Djouda, 2022). Among these changes, globalisation has given rise to a global village. This change has had a major impact on the business world and poses a huge challenge to all companies, which are now facing global competition (Mbam, 2022). Public companies are struggling to adapt to these various changes. Indeed, the challenges facing public enterprises are multiple (economic evolution, new consumption and mobility habits, digitalisation, crises...etc.): we can cite as an illustration the complaints of consumers dissatisfied with the quality of service in the case of energy supply characterised by numerous load shedding with harmful consequences for households and businesses; the turnover of social leaders of public enterprises, the most telling case of which is that of CAMAIR-CO which has had six (06) general managers in eight years; Public enterprises face competition from private sector enterprises and are confronted with a low rate of renewal of the production tool as in the case of CICAM (Cotonnière Industrielle du Cameroun) which has seen a drop in turnover of about 24.30% in 2019. It is therefore becoming essential for public enterprises to make a radical transition from a purely traditional management based on means to a management based on the quest for and evaluation of results, with the aim of being efficient and offering quality services (Mouangue-Smith, 2022). From now on, it is the company's proactivity and its ability to anticipate the needs of its customers that encourage the latter to join; hence the need to

integrate the use of new technologies within public companies through "market orientation".

Reflections on the concept of market orientation initially focused on its conceptualization (Kohli and Jaworski, 1990), and the identification of its dimensions and measures (Narver and Slater, 1990; Kohli et al., 1993). As research on the topic has developed, interest has focused on highlighting its antecedents, consequences and mainly its effects on performance, profitability (Narver and Slater, 1990; Slater and Narver, 1994) and the innovative capacity of the firm (Han et al., 1998; Hurley and Hult, 1998). These contributions are based on different definitions, which are scattered, but can be divided into two approaches: Behavioural approach: which identifies market orientation as a set of facts and actions undertaken in favour of consumers; Cultural approach: the attachment to the values and beliefs of the organisation. To our knowledge, therefore, there are no studies that have linked the use of new technologies to market orientation in the context of public enterprises. In our opinion, there is therefore a lack of a theoretical framework to explain the relationship between the use of new technologies and market orientation in public enterprises.

The interest in new technologies in the daily practice of public enterprises is reflected in the increasing number of scientific articles on the issue of innovation (Bekkers and Tummers, 2016). This paper is also an expression of this increased interest and proposes to examine the following research question: is the use of new technologies within the public enterprise dependent on its market? Thus, the main objective of this paper is to explain the use of new technologies in the public enterprise through a market-oriented approach. In order to achieve this objective, the present paper is articulated around three main points: a review of the literature on market orientation and innovation; theoretical anchoring of the use of new technologies through market orientation; the use of new technologies within public enterprises through a market-oriented approach.

II. A LITERATURE REVIEW OF MARKET ORIENTATION AND INNOVATION

It has become impossible for companies nowadays to do without innovation. Indeed, the use of new technologies allows companies to respond to new needs expressed by the market. Speaking of market orientation and innovation, what does the literature teach us? The objective of this first part is to present the state of the art on market orientation and innovation. Firstly, we will show how market orientation is a marketing approach at the service of consumers. Secondly, we will show the place of innovation within the company.

A. Market orientation, a marketing approach at the service of customers

Since its inception, marketing has continued to evolve. From a purely traditional approach, marketing has been modernised and new marketing approaches have emerged. One of these approaches is market orientation. The concept of market orientation emerged from the work of (Kohli and Jaworski, 1990), who carried out groundbreaking research by introducing the concept of market orientation in a structured way for the first time. Six months later, in October, the researchers (Narver and Slater, 1990) made a significant contribution to the construction of the concept of market orientation by proposing for the first time a measurement scale for this concept, which they had also just defined. The aim of their research is to measure the influence of market orientation on performance. This work will be the starting point for a large body of research on market orientation. Thus, the literature provides us with the concept of market orientation of the company, which seeks to transmit to the internal actors a vision centred on the satisfaction of the customers and which permanently express, through their behaviour, an absolute commitment towards the achievement of the objectives of the organisation. Generally speaking, market orientation can be understood as a marketing strategy that focuses on identifying and satisfying the revealed or hidden needs of customers. Thus, two approaches to the implementation of market orientation can be highlighted.

The behavioural approach: This approach demonstrates the direct link between the behaviour observed in an organisation and its market orientation. It also refers to the ability of an organisation to develop skills in acquiring knowledge about customers and other market participants (Atuahene-Gima, 1996; Dobni and Luffman, 2000). This approach is divided into three different phases:

- Information generation, which refers to “activities that aim to develop an understanding of current and future customer needs and the factors that affect them”.
- Information dissemination, which refers to "the sharing of information between different departments of the company" in order to meet market expectations.
- Reaction to information, which here refers to all actions taken in response to the information produced and shared.

This approach, which focuses on the company's action in response to customers' reactions, has been seen as too restrictive by some authors who have emphasised the existence of other stakeholders, starting with the company's

actors (employees, managers, etc.), the competition, etc. This is why it was to provoke sharp criticism from authors who considered that market orientation is reflected in three cultural antecedents: understanding customer needs (customer orientation), understanding competitors (competitor orientation) and inter-functional coordination to meet customer needs (Baker and Sinkula, 1999; Van Raaij and Stoelhorst, 2008). This opposition will lead to the development of the cultural approach to market orientation, as it is commonly accepted that culture constitutes a frame of reference for the internal actors of the company that guides them in their external actions. The notion of culture based on the norm of satisfying customers is intuitively appealing. It fits perfectly with the concept of market orientation, which brings together different organisational concerns.

The cultural approach: this approach focuses on the values and beliefs within the company (Gounaris and Avlonitis, 2001; Murray et al., 2011). Market orientation refers to a corporate culture that is based on a competitive strategy. The aim of the company is to differentiate itself and to surpass its main competitors. To do this, it studies the needs of customers and the way in which companies meet their expectations. It induces the behaviours necessary to deliver superior value to customers on an ongoing basis. It includes three organisational behaviours:

- Consumer orientation called "customer orientation" and defined as the willingness and ability of an organisation to understand its target consumers sufficiently to be able to deliver superior value to them on an ongoing basis and to incorporate their preferences into marketing processes.
- Competitor orientation, defined as an organisation's ability to identify, analyse and respond to competitors' actions.
- Cross-functional coordination, which refers to the coordinated use of company resources to create synergy of action within the company to deliver superior value to customers.

B. Innovation, a tool at the service of companies

Innovation is a word of Latin origin derived from the verb "novare" whose root is "novus" and means "new", "change". A number of studies have looked at innovation. This work reveals that innovation has several meanings that emerge following Schumpeter. According to (Drucker, 1985), innovation is: "the specific instrument of the entrepreneurial spirit. It is the action of opening up new possibilities for resources in order to create wealth. It is the means by which the entrepreneur produces new wealth-creating resources or enhances the potential of existing resources to produce wealth". For (Rogers, 2002), innovation is an idea, practice or object that is perceived as new by an individual or any other economic agent. According to the OECD's (Oslo Manual, 2005), innovation is: "the implementation of a new or significantly improved product (good or service) or process, a new marketing method or a new organisational method in business practices, workplace organisation or external relations". Furthermore, the (Oslo Manual, 2005) distinguishes four (04) types of innovation: product or service innovation; process innovation; organisational innovation and marketing innovation.

The Organisation for Economic Co-operation and Development (OECD) definition of technological innovation is generally the most comprehensive as it is more detailed. According to the OECD: "Technological innovations cover technologically new products and processes, as well as significant technological improvements to products and processes. A technological innovation has been achieved once it has been introduced to the market (product innovation) or used in a production process (process innovation). It involves all kinds of scientific, technological, organisational, financial and commercial activities" (Oslo Manual, 2005). This understanding of technological innovation has the merit of encompassing a wide range of possible innovations, both in terms of new products and new processes, while at the same time specifying the management areas in which this innovation could be applied (Mbam, 2022).

While it is true that several works have been interested in conceptualising innovation, it has always been considered as an instrument at the service of companies. Indeed, innovative practices within organisations date back to the classical economists (Smith, 1776; Say, 1803; Ricardo, 1817) who were already advocating the improvement of the firm's performance through innovative practices. Later, it was Joseph Alois Schumpeter who highlighted innovation as an instrument at the service of the entrepreneur. Indeed, he defined the role of the entrepreneur in innovation as follows: manufacture of a new good, introduction of a new production method, opening of a new market, conquest of a new source of raw materials and implementation of a new organisation (Schumpeter, 1982).

III. THE THEORETICAL BASIS FOR THE USE OF NEW TECHNOLOGIES THROUGH MARKET ORIENTATION

There are several theories to explain the acceptance and use of new technologies. In the context of this research, we have mobilised two main theories for this purpose: the resource theory (Penrose, 1959) and the UTAUT model (Venkatesh, 2022).

A. Resource theory (Penrose, 1959)

The theory of resources emerges from Edith Penrose's work published in 1959, entitled "The theory of the growth of the firm". It was subsequently developed in reaction to the developments proposed by the proponents of a traditional economic approach, in particular Michael Porter. Indeed, in the 1980s, Michael Porter emphasised the importance of the structure of a sector and the positioning of firms in that sector (their market power) to explain performance differentials. In response to Porter, the defenders of this theory invite us to put the spotlight on the company, to go into its organisation, to understand what can create a difference over time. They do not refute the interest of a detailed analysis of the sectoral environment of a company, but are more interested in the internal springs of the processes of creation and appropriation of value beyond the classic factors of production such as capital, labour or land. Thus, the theory of resources will make it possible to explore fundamental concepts such as the Knowledge-Based View and the Dynamic Capabilities

approach, which are fundamental elements in the management of companies.

B. The UTAUT model (Venkatesh, 2022)

With the advancement and rapid development of New Technologies, Venkatesh Viswanath proposes a recent and improved model of technology acceptance and use in a new research agenda. This model alone combines eight (08) different theories and is mainly inspired by the theory of reasoned action of (Ajzen and Fishbein, 1975), the theory of planned behaviour of (Ajzen, 1991) and the technology acceptance model of (Davis, et al., 1989) and has the merit of justifying the use of new technologies on the basis of the expected performance, expected effort, social influence and facilitating conditions that the adoption and use of New Technologies provide (Venkatesh, 2022).

IV. THE USE OF NEW TECHNOLOGIES IN PUBLIC ENTERPRISES THROUGH A MARKET-ORIENTED APPROACH

Public companies operate in a highly turbulent environment characterised by increasingly demanding and versatile consumers. They also face stiff competition and are more likely to launch new products on a continuous basis in order to successfully supply their customers and counteract attacks from competitors. It is therefore with reference to the needs of its customers and the behaviour of its competitors that the public enterprise must innovate in order to seize every opportunity to obtain technological leadership by putting in place processes and procedures adapted to the market. In effect, it is a matter of the public enterprise identifying empirical regularities and irregularities in the market, becoming aware of current and future consumer needs and competitor innovation behaviour in order to provide an innovative offer capable of giving it a sustainable competitive advantage.

Market-driven companies are distinguished by their ability to detect events and technological trends in their markets before their competitors. They therefore offer products that are adapted to technological changes and thereby create a sustainable competitive advantage (Amit and Schoemaker, 1993; Hamel and Prahalad, 1990; Melnyk et al., 2003). They are also able to launch the same products as their competitors. A market-oriented firm develops market competence related to its adaptation to technological changes that allow it to be closer to customers, and consequently to develop new products or processes to meet their diversified needs (Aldas-Manzano et al., 2005; Day, 1994; Han et al., 1998). Based on these assumptions, we formulate the following hypotheses:

➤ *General Hypothesis (GH): Innovation in the public enterprise is driven by a market-oriented approach.*

From this general hypothesis, the following Specific Hypotheses (HS) follow:

- Specific Hypothesis 1: Innovation in the public enterprise is driven by an understanding of current and future customer needs.
- Specific Hypothesis 2: Innovation within the public enterprise is driven by understanding competitors' behaviour.

On this developed theoretical basis and formulated hypotheses, we build the conceptual model of the present research:

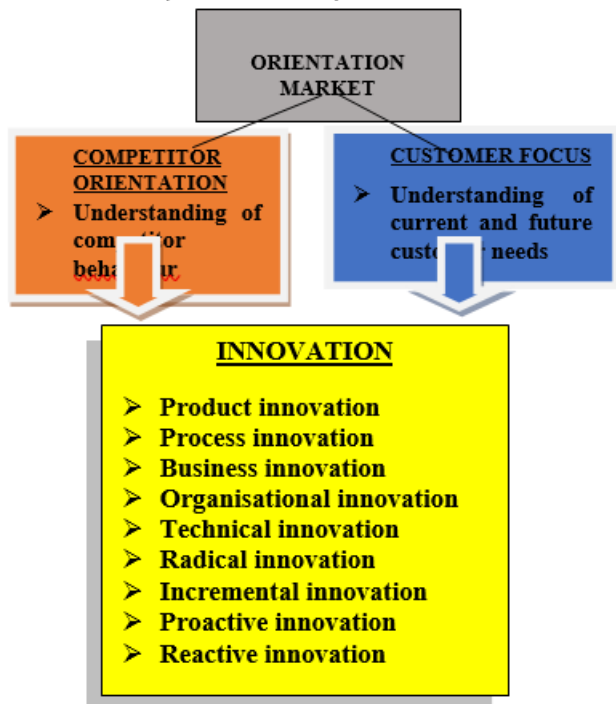


Fig 1: Conceptual model of innovation through market orientation (MOCOL'IOM)

Source : The Authors

V. CONCLUSION

The main objective of this paper is to explain the use of new technologies within the public enterprise through a market-oriented approach. Our research framework has led us to identify two main sources through which public enterprises must innovate: a customer-oriented approach to innovation (understanding current and future customer needs) and a competitor-oriented approach to innovation (understanding competitor behaviour). Indeed, innovation within the public enterprise must be closely linked to its market. This communication is therefore a relevant source of information on the links between market orientation and innovation. Indeed, it enriches the existing literature by proposing a theoretical framework to explain innovative practices within companies. In a concrete way, it calls upon decision-makers, company managers and especially managers of public companies to take very seriously the value of market orientation in their innovative practices. Furthermore, this paper aims to help these managers to continuously improve the quality of their offers and services based on innovative offers that respond to the needs expressed by their customers and the behaviour of their competitors. This paper does not only present contributions. It also presents limitations that open up future avenues of research. Indeed, not all variables of market orientation and innovation have been taken into account in our conceptual model. Moreover, this paper would have gained in information and precision if a field study had been carried out in order to test the hypotheses put forward and the proposed conceptual model. Ultimately, further work would be

important to verify the validity of our hypotheses and conceptual model in order to extend these results to other sectors of activity.

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