Available online at www.sciencedirect.com
ScienceDirect
Procedia Social and Behavioral Sciences
Procedia - Social and Behavioral Sciences 207 (2015) 797 – 806

11th International Strategic Management Conference 2015

An application of disruptive innovation theory to create a competitive strategy in Turkish air transportation industry

Evrim Gemici[a,] *, Lutfihak Alpkan[b]

[a] *Yıldız Technical University, Istanbul, 34349, Turkey*
[b] *İstanbul Technical University, Istanbul, 34367, Turkey*

Abstract

Innovation undoubtedly plays a crucial role in creating and developing of market share, revenue, growth and profit at an organizational level. Innovation strategy is considered to be one of the key elements of corporate strategies since it determines where, when and what type of innovation is needed to be implemented. In this manner, common approach tells the business leaders to listen to their customer base and direct investments in products which target desired profit margin. However, this approach ignores the emergence of disruptive forces and eventually, will cause the demise of the companies. The major focus of this study is to investigate the determining factors of embracing disruptive innovation by an incumbent, through setting up an example from the Airline Industry in Turkey. Furthermore, by doing so, the study's goal is to reveal the power of disruptive forces and investigating the rapid response given by an industry leader. In this study, qualitative case study methodology is selected since the research question is contemporary in character and the process is continual.

Peer-review under responsibility of the International Strategic Management Conference

Keywords: innovation, disruptive innovation, incumbent's response, low-cost carrier, Turkish Airlines

1. Introduction

Disruptive innovation theory is based on the fact that the reasons that contribute to a firm's success can also play a significant role in its failure. The concept of disruptive innovation explains the failure of the established companies when they encounter certain changes in the market. When technology and market experience a change, established

* Corresponding author. Tel: + 90-212-482-4553; fax: +90-212-482-4553.
E-mail address: evrimgemici@gmail.com

Peer-review under responsibility of the International Strategic Management Conference
doi:10.1016/j.sbspro.2015.10.169

companies are always well-ahead of their industries in leading both incremental and radical innovations that address the future needs of their existing customers. However, the same companies fail in the introduction of new technologies that do not meet their customer's need (Christensen, 1997). These technological changes originally took place in small and emerging markets. They typically offer different features that are not valued by the current customers of the established companies. The common characteristics of disruptive technologies are to be cheaper, simpler, smaller and providing ease of use (Danneels, 2004). However, the performance attributes of the new technology continues to improve and eventually invades the established markets (Christensen & Bower, 1996).

Defining innovation as either incremental or radical is the prevailing way in classification of innovation activities. Nevertheless, Christensen and Raynor (2003) argue that these kinds of innovations maintain the same character. The underlying reason for the failure of the established companies revolves around three main factors; the methodological difference in the pursuit of sustaining and disruptive technologies, the technological progress grows at a faster rate than what the market demands and last but not least the revenue and cost structure of established companies which target attractive profit margins and rapid growth opportunities.

Disruptive innovation involves products, services or approaches that transform existing markets or create new ones by trading off raw performance for the sake of simplicity, convenience, affordability and accessibility. The main objective of disruptive innovation is not to bring the best performance, product or service to current customers but, it is to bring lower performance products or services to market by the introduction of other benefits. Disruptive innovation theory is based on initial low-cost model but at the same time with lower performance features (Yu & Hang, 2009).

Within the framework of disruptive innovation, this study focuses on the implementation of low-cost business model via an established company in Turkey. In this context, the study first begins by a literature review of the early studies on discontinuous changes regarding the failure of established companies, various understandings of disruptive innovation and the ways to respond to disruptive innovation. Then, an in-depth case study of how and why Turkish Airlines arrived at the decision to respond to disruptive innovation which emerged in Turkish aviation industry after 1983 is reported. The results and possible future consequences of the case are also discussed.

2. Literature Review

2.1. Discontinuous Changes regarding the Failure of Established Companies

Technological discontinuity determines a new set of rules in a given industry or creates entirely new ones. It received particular attention because it explains the effects of discontinuous changes and innovations on organizations, industries and competitive environment before the emergence of Disruptive Innovation Theory. It is suggested that the periods of incremental changes are interrupted by discontinuous changes which are divided into two categories as competence-enhancing and competence-destroying changes. Competence enhancing innovations are built on company's existing knowledge and strengthened the position of established companies, whereas a competence destroying innovation makes current know-how obsolete and is generally initiated by new firms and is faced with great resistance by established companies (Tushman & Anderson, 1986).

Later on, Henderson & Clark (1990) investigated the reason as to why some incumbents fail to develop something as that is seen as straightforward. Consequently, architectural innovation forces the introduction of the knowledge of the linkage between components. In this type of innovation, understanding of the component remains the same while the linkage of components is subject to change. The companies which ignore the architectural knowledge simply failed in spite of being competent in component technologies.

However, all sustaining technological changes conduct the companies to increase the rate of performance improvement along with the customer's expectation. Sustaining technologies seek improved performance at the same time, satisfy the needs of mainstream customers in the existing market (Christensen & Bower, 1996) On the other hand, Adner (2002) explained that as technology improves and consumer requirements are met and, surpassed, consumer's willingness to pay for each improvement decreases and disruptive technologies start to capture those same consumers. The core of disruptive technology is to change the performance metrics along which firms compete (Danneels, 2004). Since disruptive technologies introduce different product features that were of no or little value before, they therefore change the basis for competition. Disruption occurs when the performance trajectories