

CUTTING THROUGH COMPETITION – A STRATEGIC GROUP ANALYSIS FOR BUSINESS MODELS IN THE ENERGY SECTOR

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Overview

When industries, such as the energy sector, are being disrupted by new technologies or regulatory frameworks, incumbents tend to look at their competitors for cues on how to react to those challenges (Deephouse, 1999; Fiegenbaum & Thomas, 1995). Thus, in times of structural uncertainty, the questions of “Who is our competition?” and “Who do we need to look at (and to follow)?” are becoming key determinants to competitive actions incumbent firms take. However, an organization’s available time to search, sort and interpret available information is limited (Hansen & Haas, 2001). Upon that, research suggest, that managers and top management teams cognitively categorize their competition into ‘cognitive strategic groups’ to answer these questions (Mcnamara, Luce, & Tompson, 2002). Managers have been found to traditionally categorize based on product or market-related attributes (Clark & Montgomery, 1999). Anecdotal and empirical evidence suggests that the concept of business models is an emerging cognitive model in various industries - including the energy sector (Baden-Fuller & Morgan, 2010), KPMG, 2015). Despite the importance of the business model concept for the energy industry and the importance of strategic groupings being an “important cognitive simplification tool used by managers to make sense of their environment” (Mcnamara et al., 2002, p. 153), research on the energy sector has so far neglected importance the of the decision maker and cognitive models in understanding the sector transition. In an attempt to close this research gap, this study depicts a business model perspective on strategic groups in the electricity sector. We do so by categorizing a dataset of 751 existing firms in the electricity sector based on business models-related attributes.

By doing so, we introduce a new perspective on competition in the energy sector and give an overview on key strategic (business model) groups and their respective strategic dimensions in the sector. Moreover, key variables in understanding and designing a business model for the electricity energy sector are presented. Besides its theoretical contributions, the study makes several practical contributions: On the one hand side, firms can use the business model categories (archetypes henceforth) as a reference point for analysing the own company. On the other hand, the overview of business models can be mapped against key strategic dimensions of the business and show mobility barriers of the respective strategic group and changes within strategic group. Moreover, the business model view on the sector can be used in the ideation process for new innovative business models, in order to facilitate the business model innovation process for energy firms.

Methods

The categorization followed the methodology of Clark & Montgomery (1999) for the categorization of competition, where first representations of the target firms are developed, the similarity of the target are compared to the category representations and a new classification is memorized. We built the categorization on company exemplars from two databases, focusing on incumbent (Thomson Reuters I/B/E/S database) and new entrants (CrunchBase database) – as this sample represents a holistic view on competition (Anand, Joshi, & O’Leary-Kelly, 2012). We analysed the 751 identified companies of the energy industry regarding their respective business model, based on secondary sources such as company homepages, reports, presentations, newsletter articles and published interviews. For each of the case companies we evaluated different attributes of the business model. The attributes are based on Frankenberger et al. (2013) on describing business models. These attributes were the value proposition (‘overall view of a company’s bundle of products and services that that are of value to the customer’ (Osterwalder, 2004, p. 43), value chain positioning (according to a beforehand defined standardised electrical value chain derived from literature review), customer segment and revenue mechanism. To ensure validity in the subsequent categorization, we followed an iterative approach and conducted four rounds of categorization. Based on a literature review, a set of seven business models were taken as the starting point for the categorization, aggregating the information from 751 items (initial case examples) to 193 categories (first iteration) to 48 categories (second iteration) to 27 categories (third iteration) to 22 categories (third iteration).

Results

The study revealed 22 business model-based competitive groups in the electricity sector, where value proposition, value chain, customer segment or revenue mechanism differ substantially to allow for the formation of a distinct archetype.

The clusters of business model archetypes vary in sizes, with 103 companies in the biggest cluster (traditional utility) and three companies in the smallest cluster (energy optimizer). This reflects the current transition of the overall industry, where traditional players try to maintain their position and new players enter the market. The results also show differences in the composition of the strategic groups regarding the type(s) of companies they comprise. While some strategic groups solely comprise companies that have been in business for many years (e.g. *Monolithic Producer* and *Traditional Utility*), others predominantly contain start-ups (e.g. *Customer Empowerment*, *Platform Player*). Other strategic groups, such as the *Virtual Power Plant* or *Flexible Energy Provider*, consist of a mix of companies covering incumbents diversifying their traditional portfolio (e.g., RWE Virtual Power Plant Service in Germany), new entrants that were active in other industries before (e.g., Swisscom Energy Solutions in Switzerland, which is the largest Swiss telecommunications provider), and start-ups (V Charge). Differences in the composition of strategic groups can indicate the existence of mobility barriers between groups (Hatten and Hatten, 1987).

Conclusions

An analysis of 751 sample companies regarding their business model and aggregating these information in an iterative process revealed 22 business model-based strategic groups in the (electrical) energy sector. The business model archetypes reflect the current transitional status of the industry, with big business model clusters in traditional businesses and new business model archetype clusters containing only a few companies operating the respective model.

The study makes several contributions to practice and theory. First, we put the managers perspective (managerial cognition) on competition in the center and follow a methodology that aims to capture the 'real' perceived strategic group competition in the industry and therefore adjust the methodology for strategic group identification from pure cluster analysis. Second, we put the business model as cognitive model of managers in the center of the strategic analysis, as the key strategic dimension. Third, we give an analytical tool (in form of business model archetypes and a morphological box) to managers that helps to understand and map ones own competitive positioning.

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