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https://www.emerald.com/insight/1012-8255.htm

Received 22 January 2022
Revised 21 May 2022
Accepted 21 May 2022

Unifying customer, product and brand performance management

Unificando a gestão da performance de cliente, produto e marca

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Abstract

Purpose – Customer, product and brand (CPB) management constitute relevant and inextricably linked levels of decision-making that marketers should manage to drive business success. However, they are generally treated separately in extant research. It leads to a disconnected assessment and management of customers and products/brands, preventing marketers to take advantage of the positive implications of managing them simultaneously. This paper aims to propose a conceptual framework to unify these perspectives: the CPB bottom-up approach.

Design/methodology/approach – The paper draws on a range of extant literature on customer equity, brand equity and product performance to identify how financial performance is assessed in each of these perspectives and support the conceptual proposition to unify these different levels of decisions-making.

Findings – The proposed framework allows predicting and managing the expected values of these three intertwined perspectives together, providing a unified forward-looking metric to more effectively drive marketing efforts.

Research limitations/implications – The proposed framework opens the path for future discussion concerning possible models that can be adopted to implement it.

Practical implications – The proposed framework allows managers to make decisions having a holistic assessment of CPB performance.

Originality/value – In practice, marketing managers have to deal with brand and product as well as customer levels of decision-making simultaneously. Besides this, adopting customer centricity does not decrease the importance of managing the performance of brands and products. Therefore, the proposition of a solution able to bridge the gap between these levels of decision-making enhances both the marketing practice and literature.

Keywords Customer centricity, Customer equity, Customer lifetime value, Brand equity, Product management

Paper type Research paper

Resumen

Propósito – A gestão de clientes, produtos e marcas constituem níveis relevantes e interrelacionados de tomada de decisão que os profissionais de marketing devem gerenciar para impulsionar o sucesso dos negócios. No entanto, eles são geralmente tratados separadamente na literatura. Isso leva a uma avaliação e gestão desconectada de clientes e produtos/marcas, impedindo os profissionais de marketing de aproveitar as implicações positivas de gerenciá-los simultaneamente. Neste artigo, propomos uma estrutura conceitual para unificar essas perspectivas: a abordagem *bottom-up* de cliente, produto e marca.

Design/metodologia/abordagem – O artigo sustenta-se em uma variedade de pesquisas passadas sobre valor do cliente, valor da marca e desempenho do produto para identificar como o desempenho financeiro é avaliado em cada uma dessas perspectivas e apoiar a proposta conceitual para unificar esses diferentes níveis de tomada de decisão.

Academia Revista Latinoamericana de Administración
Vol. 35 No. 3, 2022
pp. 398-412

1012-8255
DOI 10.1108/ARLA-01-2022-0014

JEL Classification — M310, Marketing, M300, Marketing and Advertising: General
This article was one of best selected papers of BALAS 2020.

Descobertas – A estrutura proposta permite prever e gerenciar os valores esperados dessas três perspectivas interligadas, fornecendo uma métrica preditiva unificada para impulsionar os esforços de marketing de forma mais eficaz.
Limitações/implicações da pesquisa – A estrutura proposta abre caminho para futuras discussões sobre possíveis modelos que podem ser adotados para implementá-lo.
Implicações práticas – A estrutura proposta permite que os gerentes tomem decisões com uma avaliação holística do desempenho do cliente, do produto e da marca.
Originalidade – Na prática, os gerentes de marketing precisam lidar simultaneamente com os níveis de tomada de decisão de marca e de produto, bem como de clientes. Além disso, adotar foco no cliente não diminui a importância de gerenciar o desempenho de marcas e produtos. Portanto, a proposição de uma solução capaz de preencher a lacuna entre esses níveis de tomada de decisão aprimora tanto a prática de marketing quanto a literatura.

Palabras clave Centralidade no cliente, Valor da base de clientes, Valor vitalício do cliente, Valor da marca, Gestão de produtos

Tipo de papel Trabajo de investigación

1. Introduction

Customer, product and brand (CPB) management has guided a great deal of research in the literature. Supporting a customer-centric orientation, researchers have developed methods to estimate how valuable the customers of a given company are and to develop marketing programs around them (e.g. Gupta *et al.*, 2004; Fader *et al.*, 2005; Kumar and Reinartz, 2016). At the same time, supporting the relevance of managing brands to drive the firm's long-term success, a product-oriented concept, other researchers have also developed methods to estimate how valuable the brands of a given company are and to potentiate marketing programs (e.g. Aaker, 1991, 1996; Ailawadi *et al.*, 2003; Keller, 2013; Lehmann and Srinivasan, 2014). Meanwhile, companies and researchers have not abandoned the importance of accessing the future value of each product a given company sells, of developing products based on the customers' needs and wants, and of monitoring product lifecycle (e.g. Papinniemi *et al.*, 2014; Wu *et al.*, 2014; Joo and Choi, 2015; Ma *et al.*, 2016).

However, when these three perspectives are addressed, they are usually treated separately. Moreover, in terms of product versus customer orientation discussions, often researchers establish a tradeoff between both perspectives, suggesting that managers should decide which one they will follow. For instance, Rust *et al.* (2004) suggest that "customers and customer equity are more central to many firms than brands and brand equity," and Blattberg and Deighton (1996) and Blattberg *et al.* (2001) stated that the product-oriented concept of brand equity has been challenged by the customer-oriented concept of customer equity (CE). On the other hand, authors such as Kapferer (2008) suggest that brands are more likely to generate long-term competitive advantage than customer-related tools, because the latter may become standard practice in the market once everyone adopts them.

Over the years, however, customer centricity has gained the central stage empowered by the availability of disaggregated databases, which allow analyses and decision-making at the customer level (Lee *et al.*, 2015; Kumar and Reinartz, 2016). Although extant research has recommended the adoption of customer centricity based on solid evidences that support its relevance for company's success, managers still need to make decisions and assess performance at the product and brand levels. After all, they need products to satisfy their customers and these products carry a brand with them. Thus, marketing researchers and practitioners should recognize that CPB perspectives are complementary and not mutually exclusive.

Unfortunately, the inability to unify these perspectives cause marketing managers to end up having to deal with different metrics to assess CPB performance. It is common to observe product and brand performance being managed through traditional aggregate metrics such as market share or revenue (Sunder *et al.*, 2016). On the other hand, customer performance is assessed at the customer level through forward-looking measures such as customer lifetime value (CLV) (e.g. Kumar and Shah, 2009; Zhang *et al.*, 2015). Since these metrics are not fully connected to each other, decision-making at the customer level does not take into account the expected value of products or brands, whereas decision-making at the product and brand levels does take into account the expected value of each customer.

Marketing managers decisions must deal with CPBs. However, they are different sides of the same problem: how marketing creates value. As a result, the overall cash flow generated by them is actually the same. Therefore, it is relevant for companies to manage its CPBs effectively by using one integrated framework to predict the future values of them so as to drive marketing efforts to increase company profitability. In this way, we have proposed a framework to manage CPB performance together and presented managerial implications of adopting it. Given data availability, it may be applied to the scope of one focal company only or include the different players competing in the same market.

2. Customer performance management

Marketing literature has started decreasing its emphasis on short-term transactions and increasing its focus on long-term customer relationships (Rust *et al.*, 2004). Even though brand asset also contributes to long-term firm performance, it was the customer, managed as a company's asset through the concept originally defined by John Deighton as CE, who received central focus ever since (Blattberg *et al.*, 2001). Thus, customers have become the main focus of marketing efforts (Gupta *et al.*, 2004). CE basic premise is straightforward: the customer is a financial asset that companies and organizations should measure, manage and maximize just like any other asset (Blattberg *et al.*, 2001). To accomplish it, the cornerstone of a successful marketing program is to acquire and retain the most valuable customers (Blattberg and Deighton, 1996).

CE is calculated by summing up all the CLVs of the firm's customer base (Kumar and Shah, 2009). In turn, CLV is the present value of the sum of the estimated cash flows that are expected to be provided by the customer (Villanueva and Hanssens, 2007).

The prediction of CLV usually involves estimating customer retention rate or customer purchase probability and combining them with the contribution margin expected to be spent by the customer in the future. Some models may also consider the marketing costs spent by the company (Kumar and Shah, 2009). To estimate CLV, several methods have been proposed in the literature, such as (1) s-shaped function to predict the growth in number of customers (Gupta *et al.*, 2004); (2) Markov chain models (Pfeifer and Carraway, 2000; Rust *et al.*, 2004); (3) stochastic models based on recency, frequency and monetary value (RFM) (Fader *et al.*, 2005; Zhang *et al.*, 2015); and (4) Bayesian seemingly unrelated regressions (Kumar and Shah, 2009).

According to Kumar and Reinartz (2016), once CLVs have been estimated, managers can develop strategies such as optimally allocating their limited resources and balancing acquisition and retention efforts to achieve maximum return. The vast literature around CLV reinforces the relevance of customer-centric marketing metrics, which are aligned with customer orientation, so important in today's dynamic environment. Based on a focus on customer relationship development and profitability through customer loyalty, metrics such as share of wallet, customer satisfaction, CLV and CE should nurture performance management.

CLV, however, is managed only at the customer level, not accounting for the expected value of each customer related to each product and brand offered. In this way, analyzing only customer-level data may be insufficient in many cases, which may lead to changes in consumption patterns going unnoticed by managers.

3. Brand performance management

Despite the rise of customer-centric practices, marketing managers are still making decisions at the brand level, and managing the performance of such strategies remains of great relevance for many companies. Strong, favorable and unique brand associations drive customer behavior and provide long-term performance (Leone *et al.*, 2006). In this way, the concept of brand equity is important because it links financial and marketing management concerns in understanding how a brand can command margins and loyalty beyond that, which would be obtained from the mere functional value of the product or service offered (Leuthesser, 1988).

Brand equity explains why different outcomes result from comparing the marketing of a branded product or service to the case in which the same product or service was not branded (Keller, 2013; Ailawadi *et al.*, 2003). Given the advantages that result from a brand with high equity, effective brand management requires careful measuring and monitoring of its equity over time (Sriram *et al.*, 2007). Extant research on the topic has looked at the issue from the perspective of either the consumer, consumer-based brand equity (CBBE), or the firm (financial viewpoint), firm-based brand equity (FBBE) (Christodoulides and De Chernatony, 2010).

CBBE focuses on the conceptualization and measurement of brand equity involves the set of memory-based associations to a particular brand that exist in the minds of consumers (Keller, 2013). According to Keller (2013), there is both an indirect and a direct approach to measure CBBE. The indirect CBBE approach usually involves collecting data on mindset measures of brand equity from the consumer to assess the sources of brand equity (Aaker, 1991, 1996; Ailawadi *et al.*, 2003; Kartono and Rao, 2005; Keller, 2013; ISO, 2017). In turn, the direct CBBE approach focuses on consumers' responses to different elements of the firm's marketing program such as brand preferences and utilities (Park and Srinivasan, 1994; Kamakura and Russell, 1993; Christodoulides and De Chernatony, 2010; Keller, 2013; Datta *et al.*, 2017; ISO, 2017), without attributing a monetary value to these brands.

On the other hand, FBBE focuses on a brand's financial performance and on the monetary value of a brand to the firm. Two main approaches to measure FBBE are observed in past research: (1) product market and (2) financial market. The product market FBBE approach generally involves the use of observed market data to assess the brand's financial value to the firm (Kartono and Rao, 2005), using measures such as (1) revenue premium (Ailawadi *et al.*, 2003; Lehmann and Srinivasan, 2014); (2) price premium (Lehmann and Srinivasan, 2014); (3) incremental cash flow (Farquhar, 1989; ISO, 2010, 2017); and (4) total cash flow (Oliveira *et al.*, 2015). In turn, the financial market FBBE approach considers brand performance measures in the financial market, considering measures such as (1) stock price premium (Anderson, 2011) and (2) value attributed to the brand in mergers and acquisitions (M&As) (Bahadir *et al.*, 2008).

Besides these two separate viewpoints, some authors have recently proposed what we have called holistic approach to measure brand equity, once it combines CBBE and FBBE in the same brand equity measurement model, capturing consumer perceptions about the brand as well as delivering a monetary estimation of the brand value (Kartono and Rao, 2005; Burmann *et al.*, 2009; Oliveira *et al.*, 2015).

In summary, the literature related to brand equity measurement is diverse. However, since the objective of this research is to unify CPB performance assessment in the same framework, the product-market approach to measure FBBE is the most suitable for this purpose, because, through this approach, it is possible to measure the outcomes of the companies' investments to build brand equity using a monetary estimation based on the present value of the expected cash flows associated with the brand.

The adoption of expected cash flows to measure FBBE allows linking brand performance assessment to customer and product performance assessment, which may also be measured based on expected cash flows at the customer and product level, respectively. Additionally, based on the literature concerning FBBE, the brand valuation using cash flows requires the decision of the method to reach the FBBE value. To measure FBBE, one may (1) consider the total cash flows at the brand level as the FBBE value following, e.g. the method used by Oliveira *et al.* (2015), or (2) consider only the incremental cash flow related to the brand over a certain baseline price considered the price of the product if it was sold as a commodity.

Finally, it is noteworthy that most of the authors who have developed models to measure FBBE does not aim to disaggregate the monetary value of the brand per each customer the firm has. It indicates that, in the brand equity literature, there has not been much effort to combine brand valuation to the expected value of each customer.

4. Product performance management

Product is defined as any company's offer designed to satisfy consumer's needs and desires. Therefore, it may be a tangible product, such as consumer packaged goods, or a service, such as fixed income, investment funds or shares in the financial services industry.

Considering the possibility of using brand extension strategies, managers may use the same brand to label different products in a given product category or across product categories. For example, PepsiCo's Pepsi brand is used to label colas (one product category), whereas Unilever's Dove brand is used to label soaps, shampoos and deodorants (several product categories). Furthermore, even though some companies may have only one brand to manage, it usually offers different products. For instance, an insurance company having only its institutional brand usually has a portfolio of products that includes products such as life insurance, car insurance and house insurance, which have to be managed. Based on such product and brand management possibilities, marketers need to manage not only brands but also the products offered.

Product management research involves subjects such as deciding which products should be offered (Carrol and Grimes, 1995), forecasting product demand on stock keeping unit (SKU) level or product category level (Carrol and Grimes, 1995; Ma *et al.*, 2016), analyzing product performance (Joo and Choi, 2015), managing product lifecycle (Wu *et al.*, 2014), managing customer requirements to product lifecycle management (Papinniemi *et al.*, 2014) and providing product customization for each customer (Forza and Salvador, 2008).

One of the main alternatives to assess and manage product is based on the estimation of the present value of cash flows it is expected to generate in the future (Carrol and Grimes, 1995; Joo and Choi, 2015; Ma *et al.*, 2016). However, as it is also the case in the brand equity literature, usually studies related to product management have not aimed to combine the expected value of products to the expected value of each customer. The focus only on product profitability can be misleading to managers. By not taking into consideration which products are relevant to the company's most valuable customers, managers assume the risk of remove from the mix products that are essential for such customers. As a consequence, they may decide to purchase it from a competitor and eventually may end up churning. Such negative sequence of events was named profitable product death spiral by Rust *et al.* (2000).

5. Unifying customer, product and brand perspectives

For Kapferer (2008), it is surprising to see how brand management continues to stimulate managers' interests, even though all business managers are supposed to be interested in customer relationship management, CE, CLV, customer database management. It highlights how brand management is still relevant for companies' success.

Besides this, Ambler *et al.* (2002), while criticizing the brand equity concept, stated that it is traditionally organized around products; therefore, it does not account for the financial contribution of the customer to each brand. However, in today's world in which we have more and more individual-level data available, FBBE may be assessed based on brand-level estimations of expected cash flows. Therefore, it is possible to estimate the portion of a given brand value that is attributable to a given customer. It could unify brand and customer perspectives and drive more efficient marketing efforts.

Regarding the relationship between products and customers, customer centricity is also not isolated from product management, once we need products to satisfy our customers. Finally, concerning the relationship between products and brands, to build a brand asset that is valuable, a firm needs to develop and improve products that will be labeled with its brand and are able to create customer value.

Consequently, when we analyze CPBs, we are actually dealing with different perspectives of the same problem: how marketing creates value. To be successful, first, firms have to create or co-create (Vargo and Lusch, 2004) perceived value for/with customers through developing products and brands. Second, customers provide value (CLV) for the organization (Kumar and Reinartz, 2016; Gupta and Lehmann, 2006). Thus, for the firms' decision makers, the challenge is to dynamically align resources spent on CPBs to simultaneously generate value both to and from customers (Kumar and Reinartz, 2016).

As a result, not only customers' expected cash flows increase, but also expected cash flows of products and brands increase. In fact, even though the cash flows may be analyzed from the CPB levels of aggregation, the overall cash flow is actually only one. In extant research, however, these three perspectives are usually addressed separately. Only few studies in the literature address more than one of them together. Rust *et al.* (2004) proposed a model to measure CE taking competitors into account and considering customer-based brand equity as one of the drivers of CE. Shankar *et al.* (2008) built a model to measure multi-category brand equity, accounting for brand's spillover effects from one product to another. Stahl *et al.* (2012) analyzed the relationship between brand equity and customer acquisition, retention and profit margin – key components of CLV. In turn, Sunder *et al.* (2016) proposed a model to measure customers lifetime values for different brands in a given product category.

Additionally, for Ambler *et al.* (2002), "firms should think of brand and customer assets as two sides of the same coin. One perspective without the other is unlikely to be as effective, and the combination will most often be greater than either alone" (Ambler *et al.*, 2002, p. 21). Likewise, Ding *et al.* (2020) urge future research in marketing to define how brand equity and CE relate to each other as well as how they contribute to the overall value created by the marketing department. Finally, Leone *et al.* (2006) suggested that one way to reconcile brand and customer perspectives is to think of a matrix such that an effective brand and customer management would necessarily take into account both the matrix rows (customers) and columns (brands) to arrive at optimal marketing solutions.

6. Customer, product and brand (CPB) bottom-up approach

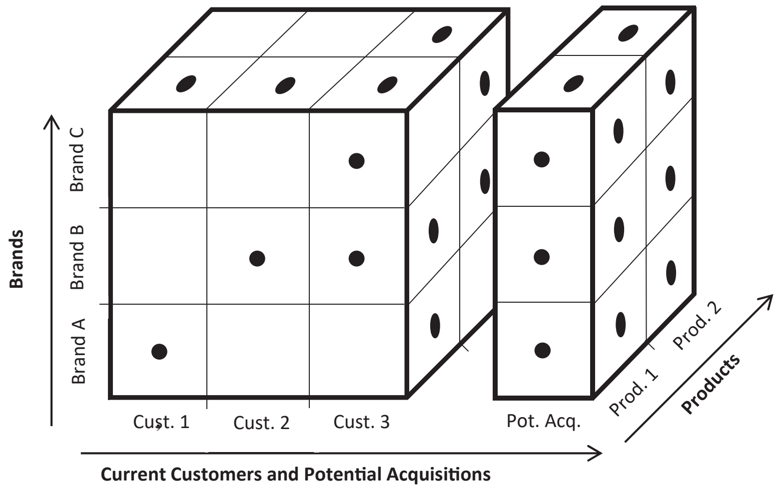
Even though there is a clear link among CPB perspectives, they have most of the times been addressed separately in the literature. Likewise, practitioners also fall short of combining forward-looking measures to assess these perspectives inside companies. Moving toward a method to accomplish it is needed. They all affect the firm's capacity to perform and, ultimately, generate future cash flows. According to Ding *et al.* (2020, p. 10), without performance metrics that properly re-aggregate the contributions of different silos inside the marketing department, the chief marketing officer will continue to face a familiar problem: "If I add up all the reported returns produced by the different marketing groups in my organization, I end up with a company that is three times the size of its current operations."

In summary, since cash flows are actually only one, i.e. the monetary value, expected to be received from customers purchases of branded products may be assessed by the estimation of the respective expected cash flows of each of these perspectives. Consequently, the aforementioned statement of Ambler *et al.* (2002) could have an even wider sense if it were updated to state that firms should think of CPB as three faces of the same cube, which represents a disaggregated estimation of the present value of expected cash flows for each existing intersection among these three perspectives. This originates the CPB bottom-up approach proposed in this study, which is explained in detail in the following sections. Firstly, the framework is built for the scope of only one focal company. Then, it is expanded to also encompass competitors, allowing an assessment at the market level.

6.1 Customer, product and brand bottom-up approach considering one focal company only

In this section, each part of the proposed framework is explained considering the scope of only one focal company. To exemplify how the proposed framework works, a hypothetical company called Beta is used.

6.1.1 Brands and products. Regarding the relationship between brands and products, some brands may be used only in one product and others in several products. In our example, we have assumed that there are only two different products (1 and 2) and three brands (A, B and C). Whether the level of aggregation used is at SKU or category level will depend on the purpose of the study and how fragmented is the product mix. In portfolios containing a high number of SKUs, category level may be preferred, whereas SKU level may be preferred when the number of SKUs is low. In Figure 1, each black dot represents the intersections with present values of expected cash flows greater than 0. In this figure, in the brands versus products face of the cube, it is shown that brand A is used to label only product 1, brand B is used to label both products 1 and 2, and the brand C is used to label only product 2. Each branded product sold contributes to the overall cash flow of Beta. Given this, the brand equity



Note(s): This figure represents the results from the customer, product, and brand (CPB) framework considering the scope of only one focal company. Each black dot represents the intersections with present values of expected cash flows greater than 0. To obtain such result the modeling method used should predict disaggregated estimations of the present values of expected cash flows for each existing combination among customers, products, and brands

Figure 1.
CPB bottom-up approach – one company only

of brand B is divided into products 1 and 2, whereas all of the brand equity of brand A comes only from product 1, and all of the brand equity of brand C comes only from product 2.

6.1.2 Customers and product. Regarding the relationship between customers and products, a given company may offer specific products to specific customers or it may offer all products to all customers. We have assumed that Beta has only three customers. From its transactions database, Beta has found out that even though it offers all products to all customers, some of them are expected to purchase only one of the products. It may happen because some customers do not perceive the same value as others do. Figure 1, in the customers and products face of the cube, shows that all of the customers are expected to buy product 1 in the future, whereas only customer 3 is expected to purchase product 2. Thus, we understand from which customers the cash flows provided by each product are coming from. It may also contribute to validate the performance of product personalization practices the firms use to better satisfy each customer. Only a fraction of the lifetime value of customer 3 contributes to the performance of product 2, whereas the lifetime values of customers 1 and 2 and a fraction of the lifetime value of customer 3 contribute to the performance of product 1. Consequently, from Figure 1, it is suggested that it is managerially relevant to analyze the CLVs per product.

6.1.3 Customers and brands. Finally, concerning the relationship between customers and brands, a given company may offer specific brands to specific customers or it may offer all brands to all customers. Because of the value perceived by each customer toward each brand, Beta has also found out that even though it offers all brands to all customers, they are not expected to purchase every brand. In Figure 1, in the customers versus brands face of the cube, similar to what was proposed by Leone *et al.* (2006), it is shown that customer 1 is expected to buy only brand A in the future, whereas customer 2 is expected to buy only brand B in the future, and customer 3 is expected to buy brand B and brand C. It identifies from which customers the cash flows provided by each brand are expected to come. Only the lifetime value of customer 1 contributes to the brand equity of brand A and only a fraction of the lifetime value of customer 3 contributes to the brand equity of brand C, whereas the lifetime value of customer 2 and a fraction of the lifetime value of customer 3 contribute to the brand equity of brand B. Consequently, it is suggested that it is also managerially relevant to analyze the CLVs per brand.

The present values of expected cash flows per brand consider the overall cash flows at the brand level. If the conceptual understanding of brand equity considers only the incremental value generate by each brand, the expected cash flows based on baseline prices of the products, as if they were sold as commodities, should be subtracted from the overall cash flows.

Given that CPBs are interconnected around the same business objective – value creation – firms should understand that the value created is in fact the result of managing them simultaneously. Therefore, such portfolios may be measured and monitored together using the unified CPB bottom-up approach that should be applied when there are transaction data available from only one focal company as represented in Figure 1.

Given the availability of historical transactional data for each customer toward each brand and product, the expected present value of future cash flows for each intersection among these three perspectives may be estimated. From this result, the performance of any level of aggregation among CPBs may be calculated through bottom-up summations.

Finally, Figure 1 also indicates the possibility of estimating the present value of potential customer acquisitions that are expected to be made by the company. For the sake of simplification, only one column of potential acquisitions is represented on the right side of Figure 1; however, it could contain several columns, each of them representing the expected present value of potential acquisitions for a given customer segment. According to Ambler *et al.* (2002), strong brands positively influence firm's ability to extend into new product areas and to acquire new customers. Furthermore, strong brands provide advantages such as reduced risk through more persistent and less volatile cash flows (Leone *et al.*, 2006), implying that they impact positively on customer loyalty and, thus, on the retention of new customers. Given this rationale, the proposed framework may also represent the present value of the expected cash flows for segment(s) of customers that are expected to be acquired by the firm for each product and brand. For this, the acquisition rate may be defined based on the acquisition goals set by marketing managers and potentiated by the investments planned to be spent on the acquisition efforts (Kumar and Shah, 2009) or predicted based on the number of past acquisitions that the firm has obtained.

6.2 Customer, product and brand bottom-up approach considering competitors

The proposed framework until this point is considering only the analysis of CPB portfolios from one focal company, so it is not taking competitors into account. By including competitors, it will take the use of the CPB bottom-up approach to a broader and higher level in terms of analysis, once it will allow conclusions about all the considered players in the industry. For it to be possible, data containing customer transactions from different competitors within the same market should be available. One of the main sources of such data is third-party scanning panel data provided by companies such as Nielsen and IRI, whose data have already been used in past research in marketing (Liu *et al.*, 2015; Sunder *et al.*, 2016). It contains precise information about customer purchases from different players.

To exemplify how the CPB bottom-up approach is enhanced if competitors are also considered, for the sake of simplification, it is assumed that the same market in which company Beta competes has only one more competitor: another hypothetical company called Alfa. It is also assumed that Alfa has only two brands: brand D (product 1) and brand E (product 2). Beta and Alfa compete for five customers that represent the whole market and they could be aggregated in customer segments based on their transactional or demographic (firmographic) characteristics (Figure 2). When the entire market is considered, the expected value of potential acquisitions from a given company standpoint is directly obtained by the estimation of the expected cash flows of potential customers with products and brands from competitors.

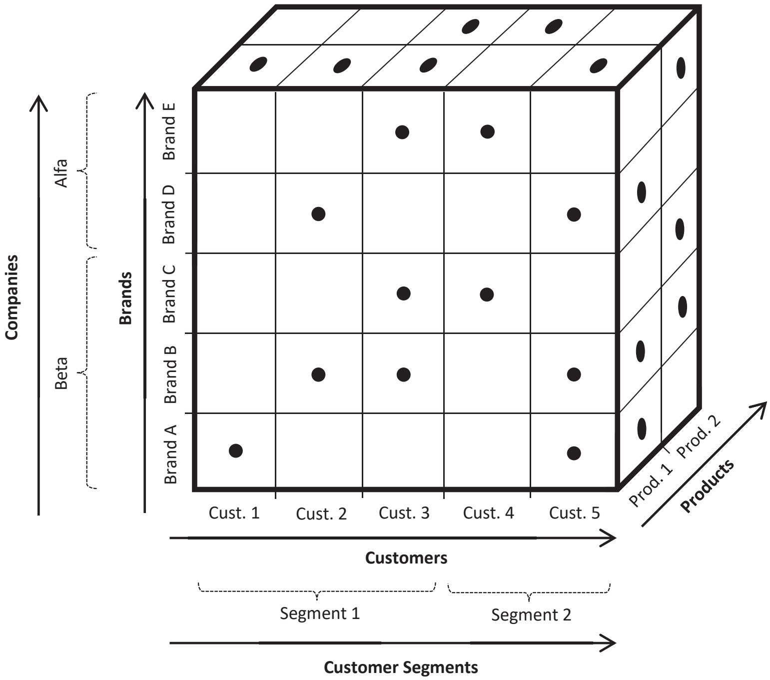
6.3 Considerations on the implementation of the customer, product and brand bottom-up approach

In this section, we briefly discuss issues that arise when the CPB bottom-up approach is empirically applied. It is intended to guide the implementation of the proposed approach in future research.

6.3.1 Required data. Concerning data necessary to build the proposed CBP framework, if the whole market is not considered, most companies have enough data available. Transaction logs from every customer purchase should be enough if it contains the following variables: customer ID, purchase date, purchased product, purchased brand, purchased product contribution margin. In turn, as aforementioned, if the whole market is considered, it would be necessary to obtain transactions logs of customers purchases from competitors.

6.3.2 Correlation among product categories and brands. It is reasonable to expect that at least some of the customers purchases from different product and brands are correlated. Therefore, it is desirable that the method proposed to estimate the disaggregated cash flows of the CPB bottom-up approach take such correlations into account.

6.3.3 Evaluating product cash flow at the category or stock keeping unit level. It is necessary to define whether the considered level of aggregation of product cash flow will be at the category level or stock keeping unit (SKU) level. To maintain a good level of parsimony, we understand that the greater the amount of companies' SKUs is the more advisable it is to deal with product cash flows at the category level.



Note(s): This figure represents the results from the customer, product, and brand (CPB) framework considering the scope of the entire market. For this representation, it is assumed that there are two companies competing:Beta and Alfa. Each black dot represents the intersections with present values of expected cash flows greater than 0. To obtain such result, data containing customer transactions from different competitors should be available. Additionally, the modeling method used should predict disaggregated estimations of the present values of expected cash flows for each existing combination among customers, products and brands

Figure 2. CPB bottom-up approach – entire market

7. Managerial implications

Given the adoption of the proposed framework, in this section, we explore managerial implications that arise when CPBs expected values are linked. Managing these perspectives simultaneously allows companies to organize their efforts around customers and take advantage of the same benefits well documented in extant research on customer centricity while also being able to manage the performance of products and brands in a forward-looking way.

7.1 Customer acquisitions and retention efforts

Once the expected value of all existing intersections among these three perspectives are known, there is forward-looking information on who are going to be the most valuable customers for each brand and product. Such result may be used to drive more precise customer acquisition efforts since managers are able to define the profile of the best customers to each brand and product to guide salespeople searching for prospects and planning the product mix that should be offered to them. Likewise, retention efforts may be improved. If a customer is not likely to purchase a given brand or product in the future as it has purchased it in the past, managers or automized customer relationship tools may precisely target this customer with the correct products or brands when trying to avoid the customer to have a lower value in the future or even defect.

7.2 New product launches and brand extensions

The CPB bottom-up approach also provides forward-looking information on which brands and products are the most important ones for the most valuable customers. It may be used to drive brand and product portfolio management. New product launches and brand extensions may be offered firstly for customers who are more likely to purchase that specific product or brand.

7.3 Removing products and brands from the portfolio

The decision to remove a product or a brand should take into account how important the product or brand is for the most valuable customers. Even though they may have a low expected value, it may not be a good option to remove it if it is part of the product mix purchased by the most valuable customers. For instance, if a low-value product is removed, these customers will probably search for such product in a competitor. By purchasing it from the competitor, these high value customers may also decide to purchase other items of the product mix from this competitor and, eventually, end up migrating to this competitor.

7.4 Product recommendations

Customers that have a lower expected value in certain products or brands than other customers with the same profile may be targeted with product recommendations in an attempt to increase its value up to the level of their similar peers. Additionally, product recommendations could take into account not only the customer propensity to purchase a given product, but also the expected value of the recommendation made, estimated based on the CLVs of similar peers for each product. It allows companies to prioritize cross-selling recommendations based on either which product the customer is more likely to purchase and which product is more likely to increase customer expected profitability.

7.5 Personalization of brand communication

By knowing who are the most valuable customers to each of the brands offered, a given company can personalize the experience of these customers to reward their patronage. It may involve personalized communications, loyalty rewards, discounts, invitation for the customer to interact with or attend to events related to the brand and so on. It is expected to strengthen the ties of the customer with the brand, increasing brand loyalty, brand referral and positive word-of-mouth.

7.6 Managing salespeople performance and setting their goals

Once the present values of expected cash flows of the CPB bottom-up approach are estimated, managers may sum the disaggregated cash flows per salesperson responsible to serve each customer to evaluate the expected performance of each salesperson. It allows managers, for instance, to anticipate a drop in the performance of a given salesman. Additionally, once the sum of expected cash flows of the CPB portfolios that the salesperson manages are known, these forward-looking indicators may be used to set goals based on the present values that a given salesman is expected to generate out of the CPB portfolios he is responsible for.

7.7 Anticipating competitor's evolution within the market

Based on Figure 2, when competitors are considered, it becomes possible to monitor how competition is evolving over time in terms of expected future cash flows for any desired intersection within this broader framework. It would be more robust than using simple measures such as market share, which takes only current revenues of players into account. Once each intersection contains a forward-looking measure, it is possible to differentiate a company that is consolidating a position, so it is more likely to bring future profits, from a company that is sacrificing future profits for current sales (Rust *et al.*, 2004).

7.8 Potential customer lifetime value

The estimation of the CPB bottom-up approach considering competitors would also allow a more complete comprehension of customers, because their lifetime values will not only take customers' purchases from only one focal company into account, but also their purchases from other players in the market. This generates the possibility of estimating what may be called potential CLV. If we use the concept of share of wallet, potential CLV would mean estimating the present value of the future cash flows based on a given customer's entire wallet. By using such metric, a manager is able to calculate the share of potential CLV that their company has, defined as the CLV for a focal company over the potential CLV. Therefore, it allows targeting customers with higher probability that such efforts end up increasing overall profitability, because the focal company knows which customers have high potential CLV and a low share of potential CLV. Likewise, retention efforts could be more effective, since managers would be able to identify customers with high potential CLV and also high share of potential CLV, which should be the customers prioritized for retention.

8. Conclusion

CPBs have mostly been treated separately in the literature. Moreover, given the importance of adopting a customer orientation in today's dynamic market environment, metrics such as CLV and CE have been strongly recommended in extant research in detriment of product-oriented metrics such as brand equity and product expected cash flows. Nevertheless, CPB management are tenets of marketing theory and practice as they contribute to one of the most important objectives of marketing: value creation. Additionally, even though companies should indeed organize their efforts around customers, decision-making at the product and brand levels are still relevant for business success.

Firms create value for customer through investments in products and brands. These processes are enhanced and dynamic practices based on customer needs and wants to create perceived value. It generates positive customer behavior toward products and brands, long-term performance, more successful product line extensions, customer retention and acquisition, word-of-mouth and so on. Besides impacting product and brand performance, they also influence CE.

On the other hand, customer management practices are also important once they deal with the extraction of the customer value created in the form of CLV. These customer-oriented practices drive firm's long-term success, enable better understanding of the value of each customer, even in large firms with millions of customers, guide marketing resource allocation at the customer level, improve customer retention and acquisition and so on. Besides contributing to the maximization of CE, they also influence product and brand performance.

In this sense, the objective of value creation is only one, and CPB management ultimately contributes to achieving such objective. Therefore, instead of managing such perspectives separately, companies should manage them together to more precisely drive marketing efforts to maximize company's profitability. We incentivize future research on the subject to develop methods to empirically apply the proposed framework and validate the managerial implications aforementioned.

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