

Digital Customer Experience

Elasticity



A principle how a change in Digital Customer Experiences impact demand and price

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1. Introduction

Competing in a global market nowadays has become increasingly difficult and only the creation of long-lasting competitive advantages seems to offer an avenue for success and survival. But where should an organization look for to develop a competitive advantage? Many advocate that one of the routes to reach is by means of a much stronger focus on the customer.

In the past two decades, and particularly in the process of devising an organizations strategy, a growing attention and focus on the customer resulted in an increased focus on CRM philosophies. More recently, focus on the customer revealed a more fundamental importance of analyzing the many experiences that originate as the number of digital contacts between an organization and its customers increased. In this perspective, the transaction-based notion of Customer Relationship Management is expanded to the “continuous” notion of Customer Experience.

The concept of Customer Experience was firstly conceived in the 80’s when a new experiential approach offered an original view to consumer behavior (Holbrook and Hirschman, 1982). Despite the initial sparks, the concept of Customer Experience came more relevantly to the fore in the 90’s with Pine and Gilmore’s book on the Experience Economy (1999). Pine and Gillmore present the ‘experiences’ as a new economic offering, which emerges as the next step after commodities, goods, and services in what they call the progression of economic value.

When it comes to Digital Customer Experiences, most organizations don’t understand what it means for them

and suffer from different barriers. The barrier on one side is about executives who speak in terms of loyalty, satisfaction, and common sense. On the other side, the barrier stands those who make investment decisions and speak about the financial of profit and loss.

Investments, resources, and prioritization in Digital Customer Experience will lead to increased customer satisfaction, higher spending, reduced attrition, greater interest in other services and products and thus more revenue. Organizations who strive for optimized experiences must find a common language that links Digital Customer Experience to Business Economics.

In this article, I use the following definition of Digital Customer Experience

‘ Digital Customer Experience originates from a set of digital interactions between a customer and a product or service, an organization or part of an organization which provoke a reaction. This digital experience is personal and relevant and involves a rational, emotional, and physical level. Its evaluation depends on the comparison between the customers expectation and the reality of the different moments of interactions ‘

The language of business economics

Study after study has proven that satisfied customers are more profitable than other customers. Loyal customers attrite less, spend more, recommend to others etc. On the flipside many of the causes of dissatisfaction increases company costs, for example when customers have to wait for their products, when they have to call to resolve an issue, when they don’t receive relevant information or promotions etc.

Given the relationship, between satisfaction and financial return, translating from the language of Digital Customer Experience into the language of finance is possible.

The field of business economics provides an interesting analogy: that of elasticity. Whatever your product, there's no single price point that will make all customers buy even though none would have paid a higher price. Instead, the more the price is increased, the more customers will walk away. Lower prices will certainly drive sales, but you can't say that the price must be \$Y or nobody will buy.

Digital Customer Experiences also exhibits elasticity to a certain extent. You could say that when digital customer experience is less, people are more reluctant to your product or service and when digital customer experience is high, the more products or services will be sold.

But is it true that 'the better you do in Digital Customer Experience, the less elasticity in demand'? And does this also apply to all products and services? What about products and services that are inelastic like oil, gas, and milk?

2. The impact of Digital Customer Experiences on demand

Different people argues that the more you invest in customer experience regardless of the cost, the greater the financial return. But in fact, the relationship between customer experience and financial return is more complex.

Meeting your customer's digital experience expectations have positive consequences while falling short on expectations directly impact demand and retention. KPMG (2016) explained that when you fail to meet customer expectations, it will have twice the negative impact as delighting customers has a positive impact. And delighting customers reaches a point of diminishing returns quickly. In other words, the economic value for your organization is lost when experiences exceed expectations or fall short to expectations.

I argue that the impact of Digital Customer Experiences on demand is a mathematical function. A sigmoid function having the characteristics of a 'S-shaped curve'. The rationale behind my assertion is that without a form of Digital Customer Experiences, there is demand for a product or service (1). When the customer lives all the moments of the relationship with an organization beyond his/her expectation (with Digital Customer Experiences), the demand will increase (2). But the slope flattens when degree of Digital Customer Experiences is more than the customer expects and thus has less to no positive influence on quantity (3).

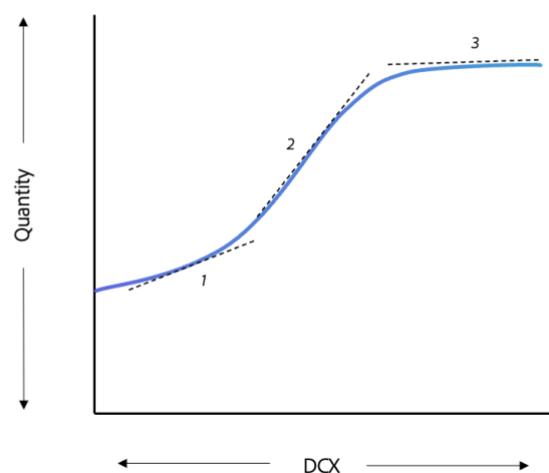


Fig. 1 Digital Customer Experience Elasticity of demand as a S-curve

3. Elastic and Inelastic products and goods

Digital Customer Experiences takes place throughout many digital interactions relevant to a core service or product offering, including multiple moments of truth that influence customer outcomes. The development of Digital Customer Experience strategies faces a number of challenges. First, there is no universally scope and how it relates to associated initiatives, such as quality and satisfaction. Second, it is widely accepted that Digital Customer Experiences are very context-specific and that there is unlikely to be a generally applicable 'play book' appropriate across all industries and company strategies.

One thing we know, customers and consumers are changing. In the field of Digital and Customer Experience, we are often told that price is less important to some customers than experience and that customers

may put up with more friction during their customer journey if they are invested in your brand. You could argue that the strength of your brand, and the degree to which customers will put up with a ‘bad’ experience will determine the elasticity.

Elastic and Inelastic products/services

Supply and demand determine the price of products and services. Organizations study the rise and fall of demand to predict market trends, set prices for their products and design marketing or sales strategy. Knowing about the elasticity of demand is crucial to understanding business and the economy.

Elasticity of demand refers to the change in demand when a change in another economic factor, such as price or income occur. Demand is a feature of economics that refers to consumer willingness or desire to purchase a product or service. Predicting demand has many factors, including price, availability, and exclusivity. Additional variations occur between target markets with different behaviors and dynamics. There are two main classifications of demand, elastic and inelastic.

Elastic goods are often more comfort or luxury products like a car, furniture or going to the restaurant or traveling. For elastic goods, it means that a small change in the price of the product may lead to a greater change in the quantity demanded by the consumers.

Goods for need or necessities are the products that have inelastic demand, water, salt, soap, petrol, etc. or the items that have no close substitutes like medicines. When the demand for the given product is inelastic then no matter what the price is, people will not stop buying it.

Price determination

The price of a product or service is determined by the interaction of supply and demand in a market. The resulting price is referred to as the equilibrium price and represents an agreement between organizations and consumers of the product or service. In equilibrium the quantity of a product supplied equals the quantity demanded by consumers.

The logic of the model of demand and supply is simple. The demand curve shows the quantities of a particular good or service that consumers will be willing and able to purchase at each price during a specified period. The supply curve shows the quantities that organizations will offer for sale at each price during that same period. By putting the two curves together, we should be able to find a price at which the quantity consumers are willing and able to purchase equals the quantity organizations will offer for sale.

The impact of Digital Customer Experience on quantity and price for Elastic products

The demand curve of elastic products and service is shallow because a small change in price results in a substantial change of quantity demanded. See below the demand and supply curve and the dot for the equilibrium price (or market equilibrium)

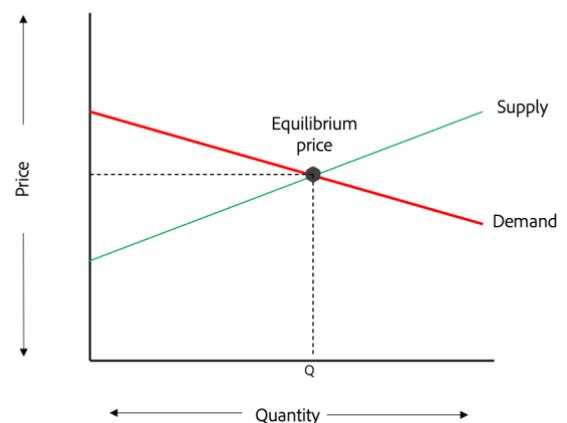


Fig 2. Supply and Demand in economic principles

The Digital Customer Experience (DCX) S curve plots the degree of the Digital Customer Experience against the impact it has on quantity. When adding the Digital Customer Experience curve to the principle of supply and demand, the following image arises.

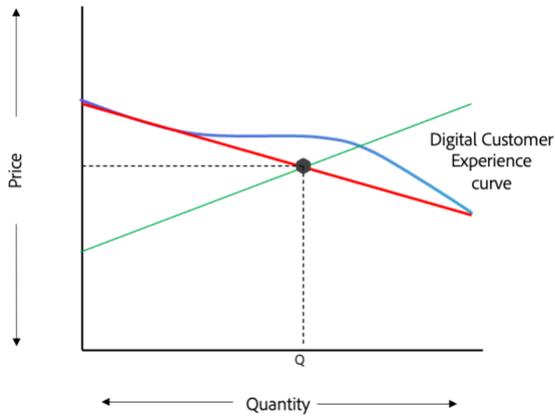


Fig 3. DCX curve plotted against demand

To identify the impact of DCX on both price and quantity, I extend the lines of the equilibrium price (Q and P) and arrive at the following image.

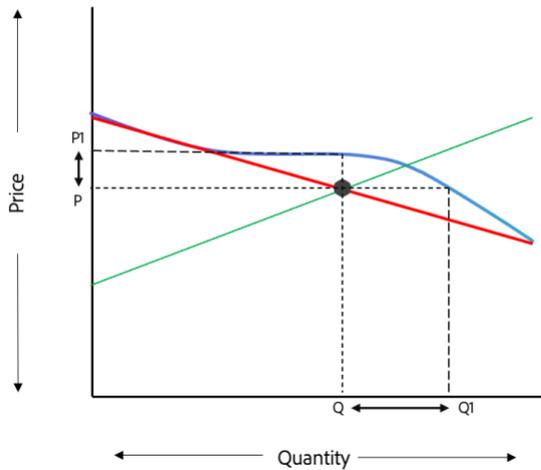


Fig 4. Impact DCX on demand on elastic products

Digital Customer Experiences has impact on price (from P to P1) and substantial impact on quantity (from Q to Q1) for goods and services which are elastic.

The impact of Digital Customer Experience on quantity and price for Inelastic products

Inelastic demand for a product or service is when any significant change in the product's price does not result in any appreciable difference in the demand for the product. Such a scenario is observed when few or very few good substitutes for the product. The price elasticity of demand for inelastic products is less than one as the percentage change in demand is less than the percentage change in price. But what will happen if we add the Digital Customer Experience into the equation.

Applying the same principles, the following image arises. Notice the difference between the quantity demanded with the elastic demand curve.

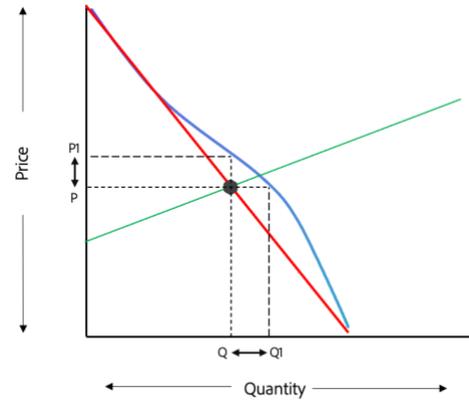


Fig 5. Impact DCX on demand on inelastic products

Digital Customer Experiences has impact on price (from P to P1) and less impact on quantity (from Q to Q1) for goods and services which are inelastic compared to elastic demand.

Different viewpoints

In the economics of supply and demand we know that when either the demand or the supply curve shifts, the results are unambiguous. We know what will happen to both equilibrium price and equilibrium quantity as we know whether demand or supply increased or decreased. But as I argue in this article, it is not just price that make demand changing.

Literature suggests that Digital Customer Experiences can lead to greater customer loyalty and secure future revenues (Fornell, 1992; Rust et al., 1994). Better digital customer experiences could potentially reduce the cost of future customer transactions, new customer acquisition, decrease price elasticity of demand and minimize the likelihood that customers will defect if quality falters (see Anderson et al., 1994).

Other scholars like Vargo and Lusch (2004) contrast this with traditional 'goods dominant logic that sees value arising from economic exchange – value is measured by the price paid.

3. Impact when a sector is at risk or at growth

Supply and demand are important elements in the economic theory. Supply is the total amount of a goods or services available at a given time at a given price. Demand is the representation of the customers' desire to purchase these goods and services. Demand as such acts as a measurement of a customers' willingness to purchase at a given price. These economic forces impact price of goods and services within an economy and the quantities produced and consumed.

I use the demand curve to represent the impact of Digital Customer Experience when demand shifts. The image below outlines the result when demand increases. In increase in demand, all other things unchanged, will cause the equilibrium price to rise and the quantity supplied will increase. The equilibrium price is the price at which the quantity demanded equals the quantity supplied. It is determined by the intersection of the demand and supply curves.

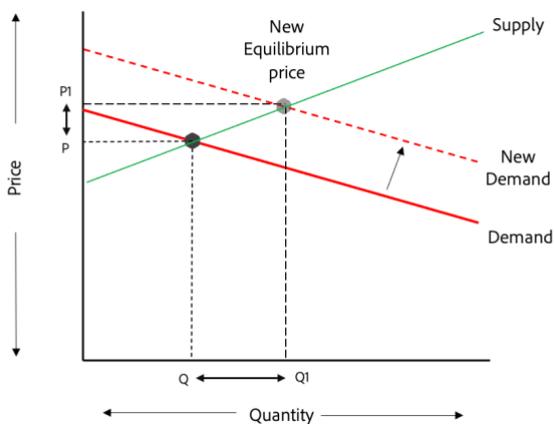


Fig 6. Impact DCX with sector at growth

When analyzing and reasoning about the impact of Digital Customer Experience on demand, it is helpful to consider whether the sector (and as such often the organization) is at risk or at growth. In other words, is the investment in Digital Customer Experience under consideration to save current business (organization at risk). Or is it designed to capture new business by offering a new and differentiated experience (organization at growth).

Sector or industry at risk

In any sector, there are moments that existing business is at risk of losing customers because of turmoil, social, economic, or other reasons. Organizations at risk are even more likely to lose unless the organization invests to improve the experience for its existing and dissatisfied customers.

In the context of this article, I state that a sector at risk will lose demand while supply of the market remains consistent. With that in mind, the demand curve will look like this;

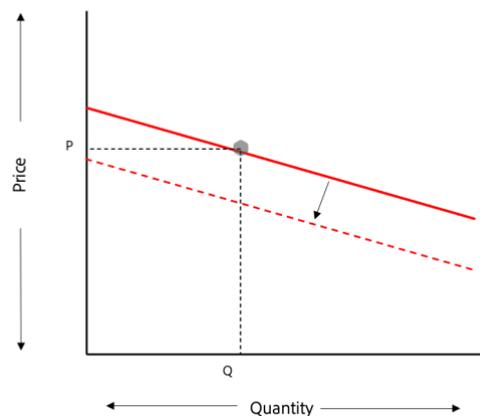


Fig 7. Impact DCX with sector at risk

In the first part of this article, I introduced the Digital Customer Experience curve. The S-shaped curve explains how the impact of Digital Customer Experiences is linked with demand. I argue that the slope of the demand curve is steep when customers live all the moments of the relationship beyond the expectation but that the slope flattens when the experiences are above the required expectations.

When combining the Digital Customer Experience curve with the decreasing demand curve, I assert that Digital Customer Experiences has a positive cushioning effect on quantity (demand) when an industry is at risk. See below in figure 8 reflecting the difference between Q1 and Q2.

Without Digital Customer Experience, the quantity decreases from Q to Q1 which is significant. The Digital Customer Experience curve (in blue) has a cushioning effect on the decreased demand curve. The gap between Q and Q2 is significant smaller compared to the gap Q to Q1. The still of the animated image below helps to better analyze the difference.

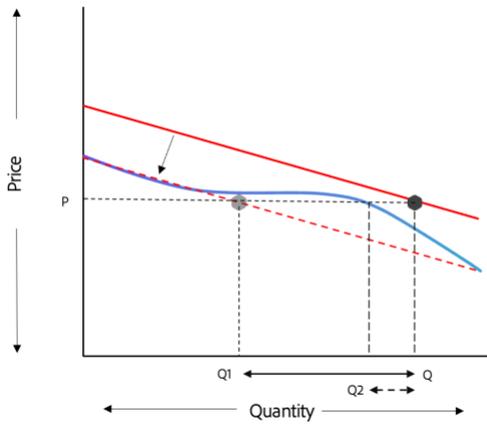


Fig 8. Cushioning effect of DCX when sector is at risk

Sector or industry at growth

In contrast to a sector at risk, a sector at growth measures the opportunity to capture new demand. This could be due to increasing incomes of consumers. Due to an increase in income, the purchasing power of consumption increases and as such the demand for the product in the market increase.

When the demand increases, the demand curve shift to the right. When we apply the same principle by adding the Digital Customer Experience curve on top of the new demand curve, the following image emerges.

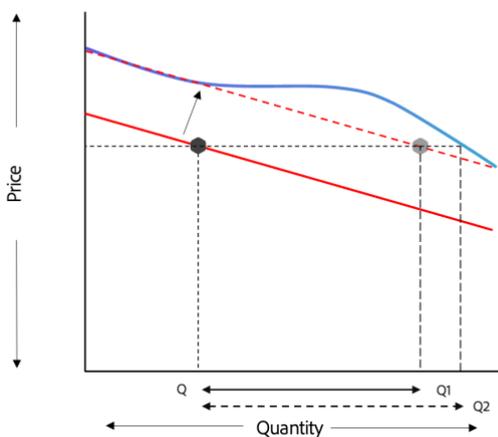


Fig 9. Positive effect of DCX when sector is at growth

Notice the difference between $Q - Q_1$ and $Q - Q_2$. The distance between Q and Q_1 is the shift of the demand curve to the right (increase of demand). Considering that price remains the same, the Digital Customer Experience curve (blue) moves the quantity demanded to the right (Q_2). The distance between Q_1 and Q_2 is the uplift due to the Digital Customer Experiences.

Therefore, I argue that Digital Customer Experience has a positive effect on quantity when the sector is at growth.

Research on Customer Experience is ongoing and plentiful. But there remain challenges in metrics – how and what to measure, and how the different aspects of Customer Experience impact financial business performance (Gronholdt, 2019). There seems that there is yet consensus on the exact measurements of Customer Experience, but there is convergence that it includes constructs that encompass value, use, quality, and loyalty from the customer perspective.

From a Business Economics perspective, it is also clear that it should be measured to company financial impact so that CX is used to build business (Bones & Hammersly, 2017).

Conclusion

Organizations suffer from a language problem when it comes to Customer Experience, a language barrier that stands those who make investments decisions. Customer Experience is a relatively new concept, in both theory and practice, which has gained larger attention in the recent past, particularly in the last three decades. Researchers and marketers describe it as a **strategic process for creating holistic customer value, achieving differentiation and sustainable competitive advantage** (Carbone and Haeckel, 1994; Pine and Gilmore, 1998; Shaw and Ivens, 2002; Gentile et al., 2007; Verhoef et al., 2009).

I have been asserting different hypothesis based on logical argumentation using the introduction of Digital Customer Experience Elasticity and combining with Economic principles. Before concluding, I will first posit a definition of the concept I introduced in this article, namely Digital Customer Experience Elasticity

“Digital Customer Experience Elasticity is the measurement of the degree of change in demand and/or price in response to a change in Digital Customer Experience.”

The following key concepts and assertions have been made in this article;

- The impact of Digital Customer Experiences on demand is a mathematical function. A sigmoid function having the characteristics of a 'S-shaped curve'.
- Digital Customer Experiences has positive impact on price and substantial impact on quantity for goods and services which are elastic.
- Digital Customer Experiences has positive impact on price and less impact on quantity for goods and services which are in inelastic compared to elastic.
- Digital Customer Experience has a cushioning effect on the decreased demand curve when an industry or sector is at risk.
- Digital Customer Experience has a positive effect on quantity when an industry or sector is at growth.

Rather, by accepting the trade-off model in Customer Experience, my purpose was to reason the logical consequences of a set of assumptions about Digital Customer Experiences. However, since my theory uses the method of logical argumentation and employing mathematical operators to deduce conclusions, the analysis presented here can only be "true" if the initial hypotheses of Digital Customer Experience as a sigmoid function (S-curve) is "true". This is not to say that the analysis need be entirely valueless if the sigmoid are not "true"; analysis such as this can be illuminating, can throw up interesting questions and curious findings even if the function is a poor descriptor of reality. Rather than laboring that point at this stage, it is probably best to let you reach your own conclusion on that matter.

Lastly, the assertions are hypothesis and not based on empirical research. Research in a variety of settings would be very helpful to establish foundation for these assertions and what the range of Digital Customer Experiences is on Quantity demanded (and price).

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