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Management

A STUDY ON DISRUPTIVE INNOVATION AND CUSTOMER RESISTANT ATTITUDE.

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ABSTRACT This paper begins by examining Disruptive Innovation theory, its requirements, examples, core arguments, its development and how it has been critiqued. Innovation is a key driver for company's growth and survival, in the long run, particularly in a dynamic & complex market and ambiguous economic situations. Innovation adoption by consumer relies upon several factors; from which most significant factors are as a consumer characteristic and the characteristics of innovation. The objective of the study is to investigate the attitude of the customers towards Disruptive Innovation and to find out the reasons for the resistance to adopt disruptive innovation. It then summarizes the key factors of customers attitude towards Disruptive innovation and as to why customers resist to disruptive innovation using the different levels of data gathering used in this study. This paper then undertakes data analysis and presents its results. The discussion returns to Disruptive Innovation and evaluates the attitude of customers , showing how customers resist to adopt and the technological challenges. The paper also proposes reasons why customers are resistant to change and factors influencing attitude towards disruptive Innovation.

KEYWORDS : Disruptive Innovation, customer resistance, Attitude.

INTRODUCTION

Disruptive innovation is when a new business model concept, product, or service creates a new market segment and value drivers. A smaller firm enters the bottom of the market, leveraging the benefits of lower costs and scarce competition to gain traction, then rapidly surges upmarket to displace established market leaders and products.

Clayton Christensen first coined the disruptive innovation theory in a Harvard Business School paper to refer to companies who meet market demands with a simpler, cheaper solution. Contrary to what many people may think, the larger incumbents were not standing still—they were actively innovating but typically focused on the practice of sustaining innovation to improve existing services.

It is hard to deny that we are living in an age of continual disruptions, defined vernacularly as fundamental changes that disturb or re-order the ways in which firms and their ecosystems operate. In the 1980s, researchers studying technological innovation focused on (among other issues) transilience (Abernathy and Clark, 1985), which culminated in the emergence of dominant designs (Tushman and Anderson, 1986; Utterback and Abernathy, 1975). The 1990s saw the advent of disruptive technologies, a concept that Christensen (1997) introduced to explore why incumbents may lose ground to innovations introduced by new entrants. This century is best described as an era of continual disruption in which technological innovations and new business model changes are affecting not just individual firms, but entire industries and ecosystems.

Disruptive vs. Sustaining Innovation.

A simpler disruptive innovation definition labels it as the creation of dynamic, new solutions to cater to unsatisfied market demand. This practice often results in game-changing products that are fundamentally different from any current choice on the market.

Defining Characteristics of Disruptive Innovation

There are several defining characteristics of innovation that qualify it as genuinely disruptive:

Lower Margins – All things being equal, most businesses want to focus on higher profit margins, as it offers more room for error and enables greater spending on marketing and development. Disruptors accept lower margins and often focus on systemization and high volume to maintain profitability.

Higher Risks – Disruptors often undertake higher risks. This risk is essential because they are not riding a wave of proven customer demand or a well-trodden path. They are an evangelist for an entirely new category.Disrupts an existing market or creates a new one – As its name implies, this form of innovation disrupts existing value networks or creates entirely new market segments. This approach is different from merely creating new iterations of current solutions.

Involves New Technology And A New Business Model – Disruptors need to have a vision for new technologies or new models to profit from their inventions. One example is taking a technology concept that is generally reserved for enterprise companies and making it available or affordable for consumers.

It Happens Slowly At First – Disruptive innovation starts slow until it hits the mainstream. At this point, it grows exponentially. For example, when Amazon disrupted booksellers by allowing customers to order books online.

New Innovation Is Often Ignored At The Outset – At the beginning, current providers ignore the newcomer, dismissing it as a fad. They don't feel threatened until it is too late.

It Seems Obvious Only After The Fact – Many consumers and competitors will think your solution is obvious. However, this realization often happens after you have achieved mainstream success.

The Innovator's Dilemma

Once you understand the differences between disruptive innovation and sustainable innovation, you have a choice to make, which presents a challenge commonly known as "the Innovator's Dilemma."

There is often a higher upside to innovating in a disruptive manner. However, there is also much more risk, time, and money involved. Because of these potential costs, innovating in a disruptive fashion may be ill-suited for organizations that do not wish to commit these resources.

With sustainable innovation, you may not achieve such heights in terms of exponential growth or profit. However, you can usually produce an incremental increase in profits or market share with less risk.

It is important to note that you don't have to choose only one type of innovation at the other's expense. You can employ a strategy that borrows from both innovation types. In this way, innovation categories are actually complementary and not necessarily combative.

Examples of Disruptive Innovation

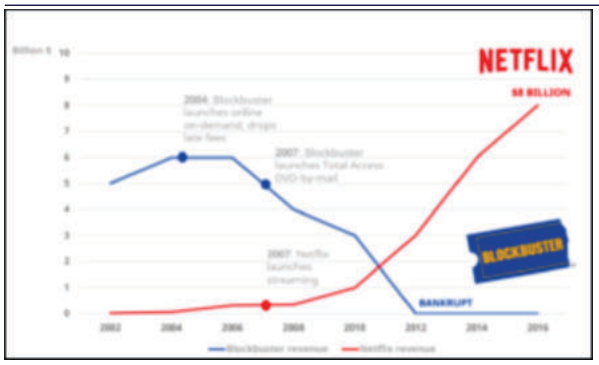
The disrupting business is not limited to a narrow set of skill sets or markets—it can happen across all industries in a myriad of ways. Let's take a look at some different disruptive innovation examples:

Video Streaming

Netflix is an excellent example of disruptive innovation in the realm of video streaming. It incorporates all of the qualities of disruption. Netflix started small by serving a niche portion of the video streaming market—those who didn't mind waiting a few days or weeks to see their movies.

At the time, Blockbuster was the king of video rentals. But like many incumbents, it was focused on their current most profitable customers instead of new markets.

Streaming video became extremely popular due to its cost and convenience, and Netflix quickly became the first choice for video watchers. Blockbuster executives were dismissing Netflix in 2008, but by 2010, Blockbuster was bankrupt.



Source: Viima

Smartphones

The iPhone is an example of disruptive innovation. It owns the idea of the smartphone category because when Steve Jobs stood on the stage in 2007 and unveiled this phone, it ushered in an entirely new category of devices.

It didn't just improve on existing phones like the Blackberry. Instead, it created an entirely new way for consumers to access the internet and enjoy digital experiences.

While there are many smartphone models today, none carry the reputation or prestige of Apple's iPhone. Innovating by disrupting a category or creating your own often means that you enjoy the first-mover advantage. In Apple's case, they held that advantage in the market for at least a decade.

Personal Computers

Before laptops and personal computers, there were mainframe computers. While powerful, they required certain skills to operate, space to contain, and money to acquire.Therefore, the customers only consisted of large companies or universities who could bypass these barriers to usage. Minicomputers came along and disrupted the industry, followed soon by home desktop computers.Incumbents weren't focused on these initially smaller markets. As such, the newcomers to the industry eventually came to dominate it. Today you hear a lot about Dell, HP, Apple, and Toshiba. But try to think of the last time you saw a computer made by IBM, which was disrupted by the internet revolution.

Lightbulbs

For years, incandescent bulbs were practically the only option for lighting homes and offices. LEDs hit the market as a disruptive technology but didn't get much attention from existing light makers due to their unreliable nature and reputation for low quality.

However, rapid innovation happened, and now: LEDs use less electricity and last longer. Almost every big lightbulb maker today now offers LEDs. And in fact, many local governments require LED bulbs to promote energy conservation.

Artificial Intelligence (AI)

AI has been another massively disruptive technology, as it helps enterprises collect and analyze vast amounts of data with incredible speed and accuracy. As AI technology uses advanced machine learning processes, including language pattern recognition and image analysis, there is simply no way for traditional tools or humans to compete.

One of the many areas where AI has changed consumer habits is in cloud storage. Nowadays, anyone can pay an affordable monthly subscription to store data in the cloud.

Ride Sharing

Uber started a ride-sharing revolution with the launch of its peer-to-peer (P2P) app. Traditional taxis were more unreliable, costly, and offered little in regards to customer service or recourse for a bad experience.

Now, you don't need to wander out to the street with the hopes of waving down a cab. You can simply press a few buttons on your phone and arrange for a driver to pick you up in a relatively short time frame. Even the payment is completely digital.

Review of Literature.

There are very limited studies found in the previous literature those exploring the determinants relationship with consumer resistance to innovation. Similarly, there are few studies found empirically investigating the consumer innovative behavior – one of the major factors toward consumer resistance toward technologies (Park & Chen, Citation2007). Lennon et al. (Citation2007), while exploring the factors those contribute to consumer positive decision to adopt innovations, emphasized that it was equally significant to understand the reasons behind resistance to latest technologies or ideas (Midgley & Dowling, Citation1993; Rogers, Citation1995). It was found that three innovative projects, out of four, fail due to consumers' resistance (Cooper & Zmud, Citation1990); whereas, studies are limited on resistance to innovation and specific context only. However, there is are limited number of studies providing understanding and explanatory power of consumer resistance to innovation. Understanding of consumer resistance to innovation, there is lack of research focus of consumer resistance to innovation.

Methodology

In this study, the researcher used quantitative approach. Quantitative data includes a self-administered questionnaire to sample groups of respondents. The population for this study is targeted to students, business people, housewife's , employees. Selected sample from the wide range of population who are mobile phone users for amazon ,Netflix etc. The sample size of no less than 200 perceptions as to The sample size of this current research is fulfilling the criteria of minimum recommendation proposed by various researchers The minimum sample size of this study to study the attitude of the customers towards disruptive innovation and to find out the reasons for resistance to adopt the disruptive innovation is necessary 150.The data have been collected using self-administered questionnaire .The respondent has been selected using stratified random sampling technique.. The stratified random sampling outline is focused around present category as student's business people, housewife's and employees.

To ensure consistency among all variables, researcher measured all items using 1 to 6 points scale where 1 = disagree very much, 2 = disagree moderately, 3 = disagree slightly, 4 = agree slightly, 5 = agree moderately, and 6 = agree very much. The structured questionnaires will use to collect data regarding each study variable. Moreover, this scale is much easier to construct and much more reliable than other scales such as four-point Likert scale and five-point Likert scale (Chomeya, Citation2010). Statistical software like SPSS and advanced Excel used to carry out statistical analysis to meet the desired objectives of this study.

Validity Test

To observe discriminant validity Test, this study commenced discriminant validity to ensure the external consistency of the design, based on the comparison between the latent variables are: attitude toward existing product (ATEP) = 0.856; consumer innovativeness (CI) = 0.723; complexity (COM) = 0.782; consumer resistance (CR) = 0.781; emotions (EMO) = 0.791; motivation (MOT) = 0.782; price (P) = 0.741; perceived risk (PR) = 0.740; relative advantage (RA) = 0.763; self-efficacy (SE) = 0.784; and social influence (SI) = 0.770.).

Data Analysis

The hypothesis was constructed based on the reviews and the relative importance of the variables was statistically tested.

Table-1 Descriptive Analysis Of The Items That Assess Disruptive Innovation

Items	Mean	Standard Deviation	Coefficient of Variance
Perceived risk and resistance to innovation	6.68	2.344	35.09
Relative advantage is one of the best and most consistent predictors of innovation adoption.	6.84	2.058	30.09
Complexity is one of the best and most consistent predictors of consumer resistance to innovation.	7.02	2.067	29.44
Consumer characteristics influence.	6.78	2.080	30.68
Complexity and consumer resistance to innovation.	6.67	2.334	35.04
Emotion (negative) and consumer resistance to innovation.	6.74	2.048	30.05
Price and consumer resistance to innovation.	7.04	2.057	29.24

Hypothesis 1: There is a negative relationship between relative advantage and consumer resistance to innovation.
Hypothesis 2: There is a positive relationship between perceived risk and consumer resistance to innovation.
Hypothesis 3: There is a positive relationship between complexity and consumer resistance to innovation.
Hypothesis 4: There is a positive relationship between social influence and consumer resistance to innovation.
Hypothesis 5: There is a positive relationship between price and consumer resistance to innovation.
Hypothesis 6: There is a negative relationship between motivation and consumer resistance to innovation.
Hypothesis 7: There is a negative relationship between self-efficacy and consumer resistance to innovation.
Hypothesis 8: There is a positive relationship between emotion (negative) and consumer resistance to innovation.
Hypothesis 9: There is a positive relationship between attitude towards exiting product and consumer resistance to innovation.

Hence, based on the studies it has been concluded that relative advantage is one of the best and most consistent predictors of innovation adoption.

Hence, based on the studies it has been concluded that perceived risk is one of the best and most consistent predictors of innovation resistance.

Complexity and Resistance to Innovation

Hence, based on the studies it has been concluded that complexity is one of the best and most consistent predictors of consumer resistance to innovation. Relationship between consumer characteristics and resistance to innovation. Motivation and resistance to innovation. Self-efficacy and resistance to innovation. Emotion (Negative) and resistance to innovation. Attitude toward existing product and resistance to innovation

RESULTS AND DISCUSSION

The study shows that the effect sizes for attitude toward existing product, complexity, emotion (negative), motivation, price, perceived risk, relative advantage, self-efficacy, social influence, and consumer innovativeness on consumer resistance to innovation 0.0017, 0.0310, 0.04312, 0.0293, 0.0362, 0.0034, 0.0017, 0.0121, 0.0224, and 0.0190, respectively. Therefore, following Cohen's (Citation1988) guideline, the effects sizes of these 10 exogenous latent variables on consumer resistance could be viewed as small, small, large, and none, respectively.

Regarding the hypothesis testing the researchers run bootstrapping method to check whatever consumer innovativeness have moderates relationship between (attitude toward existing product, complexity, emotion, motivation, price, perceived risk, relative advantage, self-efficacy and social influence) and consumer resistance to innovation. As shown in Table 6, out of nine (9) moderating interaction hypothesis four hypothesis are significant at $p < 0.1$ and remaining five are insignificant at $p < 0.1$ the R^2 value of the consumer resistance to innovation construct is increased from 0.420 to 0.458 by introducing consumer innovativeness as a moderating variables between the relationship of (attitude toward existing product, complexity, emotion, motivation, price, perceived risk, relative advantage, self-efficacy and social influence) and consumer resistance to innovation.

Again some variables like innovation characteristics (e.g. social influence and price) and consumer characteristics (e.g. motivation, self-efficacy, emotions, and attitude towards existing product) which are may influence consumer resistance to innovation.

On top of that, consumer innovativeness as a moderating variable is also tested to investigate its direct relationship. It is proven as a good predictor of consumer resistance to innovation. Similarly, perceived risk, relative advantage, and attitude toward the existing product are not found as a predictor of consumer resistance to innovation. The proposed theoretical framework of consumer resistance to smartphone represents an acceptable where 50% (R^2 value) of variation in consumer resistance is caused by the hypothesized factors.

CONCLUSION

The objective of this study is to investigate the factors influencing consumer Attitude and resistance to innovation (Smartphone). Based on the gathered data, seven out of ten hypotheses are significantly supported, where emotion (negative), attitude, existing product, motivation, and self-efficacy are of consumer characteristics. Meanwhile, price, social influence, complexity, and relative advantage are of innovation characteristics. Emotion, motivation, price, complexity, social influence, and self-efficacy are the best predictor of consumer resistance to innovation.

Thus, the strength of the relationship between consumer characteristics and consumer resistance to innovation is moderate; but this relationship is in line with resistance to innovation theory which revealed that behavior and attitude of consumer were influenced by consumer innovativeness. This implies that the consumer with high consumer innovativeness could have very innovative than the consumer with low innovativeness. Hence, based on the study the suggestion is that the level of consumer innovativeness can weaken, strengthen, or have no effect on the negative relationship between self-efficacy, motivation, relative advantage, and consumer resistance to innovation. Similarly, the level of consumer innovativeness can weaken, strengthen, or have no effect on the positive relationship between emotion (negative), attitude toward existing product, perceived risk, complexity, social influence, price and consumer resistance to innovation.

Finally, there is an evidence of moderating effect of consumer innovativeness on the relationship between attitude toward an existing product, complexity, emotion (negative), motivation, price, perceived risk, relative advantage, self- efficacy, social influence, and consumer resistance to innovation. This study is able to provide supports for four moderation interactions; emotion, motivation, price, and self-efficacy that have some moderating effects on the relationship between consumer innovativeness and consumer resistance to innovation. Meanwhile, attitude toward existing product, complexity, perceived risk, relative advantage, and social influence is insignificant with the relationship of consumer innovativeness and consumer resistance to innovation.

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