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THE IMPACT OF PSYCHOLOGICAL BARRIERS IN INFLUENCING CUSTOMERS' DECISIONS IN THE TELECOMMUNICATION SECTOR

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ABSTRACT

Increased competition in broadband telecommunication market led to a surge in campaigns and packages for customers. Whereas traditional economic theory assumed that abundance of alternatives is to be welcomed by customers, recent theories however, have emphasized that multiple choices may have a negative role in adoption or switching behavior. The unorthodox conclusions of negative impact of wide assortment of choices were studied through the lens of behavioral economics. Most notably, "anticipated regret" was identified to be major cause of choice deferral of purchase. This paper investigates the role of selection difficulty and anticipated regret on the intention of broadband subscribers to upgrade to higher connection speed. The result shows that there is a significant positive relationship between anticipated regret and decision avoidance. Results also indicate that selection difficulty has positive relationship with switching cost thus indirectly reducing the perceived net benefit of upgraded internet connection. This study, therefore, confirmed the significant impact of psychological barriers together with economic factors in influencing customers' decisions in the telecommunication sector. This paper thus recommends managers of telecom firms and regulators to seek reducing anticipated regret and selection difficulty when promoting upgraded services even when such services are promising higher economic benefit.

KEYWORDS

Switching Behaviour, Psychological Barriers, Broadband Industry, Structural Equation Modelling

1. INTRODUCTION

Innovations in telecommunications and investment in broadband infrastructure allow new entrants to offer more advanced services in competitive prices. Adopting these services by consumers may enhance the overall perceived value and increase efficiency in the market. Therefore, "an important characteristic of a competitive broadband market is the ability of consumers to switch between broadband service providers"[1]. However, limited numbers of consumers tend to switch their provider even when better alternatives may be present in the market. The aim of this study is to investigate the factors that influence the upgrade behavior in a broadband telecommunication market in the presence of multiple available alternatives. In particular, this paper argues that psychological factors such as selection difficulty, anticipated regret and decision avoidance play a significant role in the intention of subscribers to upgrade their services.

When a consumer opts to purchase a new telecommunication service or package, she will encounter a wide assortment of choices. While companies offered many different services to meet the unique demands of its clients, this attitude, had its drawbacks as it reduced purchasing swiftness of consumers who are less capable of choosing the service which best suits them. In telecommunication markets, upgrading services may have a significant benefit compared to the added fee that the customer has to pay. However, customers are reluctant to upgrade even when such an opportunity exists.

The commitment of customers to stay with their current operator was justified by economical reasons which usually put high emphasis on the switching barriers such as money, time and effort [2]. Nonetheless, the traditional theories of utility and expected utility were not always sufficient to explain the tendency of customer to remain with their broadband service provider [3]. In particular, psychological misperception [4] proved significant in the inclination to stay with the current service provider.

One often discussed misperception is "Endowment effect" or "loss aversion". The concept of loss aversion was applied to justify flat-rate bias of customers in internet services [5], as customer tend to chose flat-rate tariff plan even when they would be better off economically paying through metered payment plan. Mitomo et. al [6] integrated concepts from behavioral economics theory such as loss aversion and reference dependence to explain the flat rate payment bias of mobile internet subscribers.

Another related factor for status quo bias is regret-avoidance. Evidence has shown that human are regret-averse meaning that they chose situations in which they are less likely to regret in future, even if in advance their decision to be in a different situation could be better justified given information available at that time [7]. In his book, "The Paradox of Choice", Barry Schwarzt [8] explained the psychological reasons associated with abundance of choices that lead to choice paralysis. In particular, Kahneman et al. [9] explained that decision makers feel stronger regret for bad outcomes that are the result of action taken rather than similar results based on lack of action. Several other studies have experimentally evaluated the role of anticipated regret in customer behavior [10]. A common antecedent of anticipated regret is selection difficulty. Selection difficulty is the amount of psychological pressure required to select the best option among many alternatives. Selection difficulty is usually related to number of choices and number of parameters for each choice that needs to be compared with other alternatives.

Previous works on switching behaviour focused on costs and benefits of switching in examining the attitude to switch. This paper integrates the cost-benefit model with constructs that impede decision making, mainly: "selection difficulty", "anticipated regret" and "decision avoidance". The results show that there is a significant positive relationship between anticipated regret and decision avoidance. Results also indicate that selection difficulty has a positive relationship with anticipated regret thus indirectly reducing consumer's upgrading behavior of their internet connection. Such a combined model will aid managers of telecom firms and regulators as it highlights the significance of reducing anticipated regret and selection difficulty when promoting upgraded services even when such services are promising higher economic benefit.

2. THEORETICAL BACKGROUND

2.1 Cost-benefit analysis

The model presented in this case study builds on the rational based decision making framework which applies cost-benefit heuristics in its analysis. Kim [11] applied the concept of cost-benefit

analysis to evaluate the switching behavior to new information systems. Joshi [12] implemented an equity implementation model (EIM) which evaluated the behavior of the individual based on a comparison of changes in outcomes and changes in inputs. Other models which apply similar concepts are the "push-pull" models which are explained by Bansal et al. [13] as "According to the push-pull paradigm, there are factors at the origin that encourage (push) an individual to leave and factors at the destination that attract (pull) the individual toward it". Cost-benefit models in general rely on switching costs, switching benefits and perceived net benefit of switching behavior. Switching costs are defined as the factors that restrain a broadband connection subscriber from upgrading his/her service. In particular these costs were defined in terms of additional monetary costs required to be paid including costs such as installation costs and modem price, effort needed to conduct the switching process, time required to make the switch and general discomfort for the transition [14]. Switching benefits are the advantages granted by the switch to the new service. Based on Moore et al. [15], consumer benefit can be assessed in terms of importance of upgraded internet to the customer, the expected increase in efficiency, the expected increase in productivity and the expected enhancement in usage experience. The advantages are mainly subjectively evaluated based on the expected utility of the new service. Finally perceived net benefit is the subjective evaluation of the overall utility of a switch given the switching costs required. Perceived net benefit measures the extent to which the customer considers switching worthwhile given the costs he/she encounters in addition to the extent that the customer believes switching to a new provider is justified economically [16].

2.2 Decision Avoidance

The concept of decision avoidance was formally introduced by Anderson [10] who analyzed the constructs of decision avoidance, its antecedents and its consequences. Related notions to decision avoidance were discussed in various disciplines of psychology in the second half of past century. Festinger [17] introduced the concept of cognitive dissonance which is the conflict between two or more ideas or concepts, whereas the first idea usually represents a current state or action, the others ideas support a different course of action to be taken. For example, a smoker who is well informed of the dangers of smoking is in a state of cognitive dissonance. This state of conflict (i.e. dissonance) is uncomfortable, inducing individuals to reduce it or avoid it. He claims that individuals try to avoid cognitive dissonance through rejecting to make a change as this change may contradict held ideas or concepts. Supported by the concept of "cognitive dissonance" Irving et al. [18] introduced the concept of defensive avoidance. "The defensive response takes several forms: evasive, in which reminders of the decision are ignored and distractions are sought; buck passing, in which responsibility for the decision is shifted to others; and bolstering, in which the decision maker seeks reasons, in a biased manner, to support an inferior course of action" [10]. Later research focused on incorporating decision avoidance principles in consumer behavior. Beattie et al. [19] contrasted decision aversion with decision seeking behavior of individuals. They concluded that decision avoidance is context based rather than based on individual characteristics. More specifically, Samuelson et al. [4] experimentally deduced that humans have what they called "status quo bias". Status quo bias is the inclination of

decision makers to stick with current choice when presented with other choices while the expected utility function favors alternatives. Furthermore, it is argued that status quo bias can occur even in simple decision making [4]. In accordance to the aforementioned concepts decision avoidance is defined as perception of individuals to require more time before deciding to switch to an alternative option. In other words, decisions avoiders tend to believe they need more time before making a decision.

2.3 Regret Theory

Research on regret had an exponential rise in the past few years. Regret as an emotion was integrated into various fields such as economics, psychology, marketing, health and other domains [20]. Discourse on the impact of regret in decision making is expected to grow. The increase in market competition and economic liberation in the past years, gave individuals more choices and more control over what to choose. Furthermore, the spread of information technology has amplified the sources of information. This has resulted in an increased sense of self responsibility over decisions that people make. The significance of regret stems from its direct relationship with responsibility [21]. Therefore regret is a direct consequence of person's actions or inactions.

Negative emotions following a wrong (or non-optimal) decision such as regret often transforms into a memory people perceive as a resource for the next decision making process. Therefore, regret is not a passive emotional state, but transforms into an active emotion in decision making process. In particular, in purchase behavior customers tend to estimate anticipated regret that may come as a consequence of their choice [21]. Anticipated regret can be explained based on Schwartz et al. [22] as a consequence of customer negative emotions when he/she recognizes there are better alternatives and counterfactual thought of what would have happened if he/she had chosen differently in addition to the anticipated negative emotions that the respondent usually suffers if he/she makes a wrong decision.

Research has shown that alternatives that create the least amount of regret may not always be explained through traditional theory of economic utility of the present alternatives. In particular, research focused on the impact of anticipated regret on the decision of a customer to stay with the default or conventional alternative [23]

The explanation for higher intensity of regret is related to the counterfactual thinking that individuals encounter after taking a decision. Counterfactual thinking is collection of imagined scenarios that are alternative to reality which often represent better situation, had the individual chosen differently. The individual reminds himself of "if only - would have been" scenarios. One explanation for potentially higher encountered regret after taking an action (vis-a-vis keeping the status quo) is that it is easier for individuals to imagine alternative realities that were once status quo than a scenario that ought to happen had an action been taken [24].

2.4 Selection Difficulty

Shugan [25] formally introduced the concept of "confusion index" in his discussion on the factors that influence the thinking costs when choosing an item among available alternatives. He understood that mental capability of an individual is a limited resource and factors such as: number of alternatives, number of characteristics for each alternative, similarity among alternatives, and the desire of the individual to make the right choice have mental cost on the decision maker. For consumers, depending on the attributes of the choices, they will face a

difficulty in picking an optimal choice [26, 27], and will perceive selection process as complex task [28]. Iyengar et al. [29] created a series of experiments to test the impact of a number of choices on decision behavior and subsequent satisfaction. It is argued that individuals encountering extensive-choices are more likely to feel responsible and that might inhibit their decision out of fear of later regret [29]. When decision maker is ought to make a decision from a set of similar choices, his/her anticipated regret will increase since his/her choice implies missing opportunity of other choices and therefore increased counterfactual thinking. In general this argument applies for perceived selection difficulty of one choice from a set of choices.

3. CONSTRUCTION OF THE MODEL

3.1 Switching costs, switching benefits and perceived net benefit

The aim of this case study is to investigate the interaction between major constructs within the switch-cost model and the psychological constructs from regret and decision avoidance theories. The impact of switch costs on the switching intentions has been reviewed in many literatures. Cronin et al. [30] representation of sacrifice construct resembles the definition of switching costs. According to the authors the sacrifice construct has a negative impact on the perceived value preceding the behavioral intention of customers. Yang et al. [31], further confirmed switching costs will lead to higher level of perceived value which will increase likelihood for loyalty of the current provider. Based on these theories the following is proposed:

Hypothesis 1: switching costs have a negative impact on perceived net benefit.

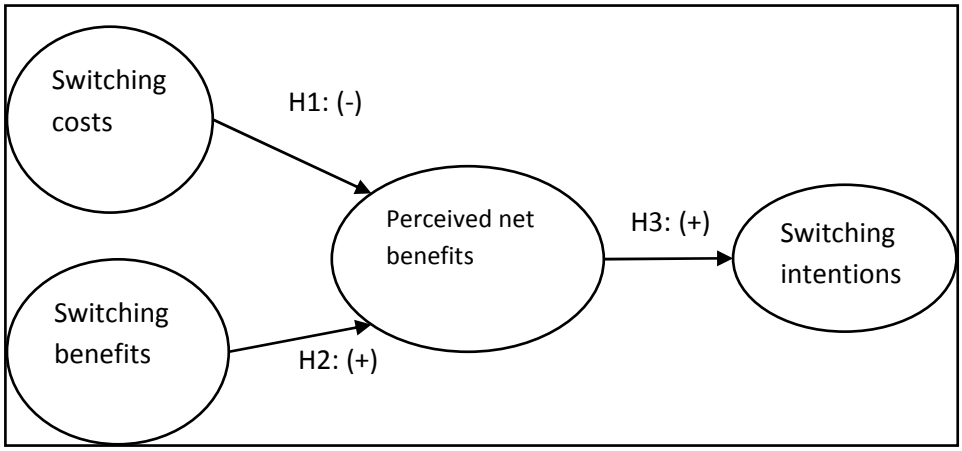
Perceived switch benefit is preliminary self evaluation of the impact of increased internet speed on the well being of the subscriber. This construct is similar to the construct developed by Moore et al. [15] concerning relative advantage. Subscriber would view higher internet speed as increasing productivity, efficiency and lowering nuisance caused by lower speed internet.

Hypothesis 2: switching benefits has a positive impact on perceived net benefit.

Perceived net benefit is evaluation of whether switching to higher speed of internet given the costs encountered would be a smart choice. According to "canonical" form of cost-benefit model, a consumer will opt for an alternative with higher net benefit based on customer preferences [4]. It follows that that an increase in perceived net benefit of a switch will increase switching intention of customers and decreasing perceived net benefit will result in decreasing switching intention. These assertions follow various literature on the relation between perceived value and behavioral intention [11, 30 – 32].

Hypothesis 3: perceived net benefit has a positive impact on switching intention.

Figure 1 displays the summary of the rational based cost-benefit analysis of switching behavior. The novelty of this research stems from the added factors corresponding to behavior economic models, these are: anticipated regret, selection difficulty and decision avoidance.



3.2 Decision avoidance, selection difficulty and anticipated regret

Decision avoidance is a representation of uncertainty and desire to confirm decision before drawing a conclusion toward a switching behavior (switch vs. non switch). An individual who has a switching intention has already committed to the idea of switch, but is yet to take action. The relation between decision avoidance in its different forms and behavior of customers were discussed by several authors [33-37]. However, most discussions were focused on the antecedents of decision avoidance and characterizations of customers based on their psychological characteristics. Consumer behavior studies were a subset of an overall study relating decision avoidance with overall behavior. For example Ferrari et al. [37] related decision avoidance to the choice of "previous performance styles, even when they are no longer optimal". Further, a preference for no-choice option is driven by "hesitation" to commit to a single choice [27]. The relation between decision avoidance and potential product or service purchase was reflected in series of papers [34, 36, 37]. Based on these theories the following is proposed:

Hypothesis 4: decision avoidance has a negative impact on switching intention

The risk of failure and the anticipated negative emotions create a feeling of uneasiness which creates an attitude for the consumer to postpone or delay the decision. More precisely, Lazarus's theory of emotion elicitation implicates that choosing an avoidance option is a technique of emotional coping when consumers are faced with conflicting decisions where tradeoffs are required [36]. Similarly, cognitive dissonance theory [17], explains the choice avoidant option when consumers are encountered with contradictory choices or when there is possibility of dissatisfaction after the switch. Decision avoidance therefore has a temporal perspective which is similar to construct "decision procrastination" [38] and applied by different consumer behavior theorists such as Tsiros et al. [39] in their paper on antecedents and consequences of regret in consumer behaviour, illustrated hypothetical situation to assess various assumption on the relation between regret, anticipated regret and switching behavior. They generally concluded that customer would avoid anticipated regret through sticking with status quo. In particular, with irreversible decisions there will be more anticipated regret association. In the case of broadband connection even though the decision is revisable, however, it is usually associated with high costs which implies lower reversibility than other services or products. Redelmeier et al. [40] related regret to number of choices offered. With higher number of choices there was higher commitment

to status quo due to higher conflict of choice and higher anticipated regret. Based on the mentioned studies the following is postulated:

Hypothesis 5: anticipated regret has a positive impact on decision avoidance

Emotions such as anticipated regret have direct association with switching costs. If an action is easily rolled back with no commitment required, the anticipated regret will be minimal. Switching costs in this study take the form of monetary costs of setting up the new system (installation plus modem) in addition to time and effort required to complete the task. Therefore, the following is proposed:

Hypothesis 6: Switching costs have direct positive impact on anticipated regret.

Similar reasoning can be applied on the relation between switching costs and selection difficulty. Given minimal switching costs, it will be easier for a customer to select a choice as this selection can be overturned and another selection can be made. In contrast with higher switching costs the customers will try to minimize the loss and increase the value of the choice which involves more comparisons between choices (i.e. selection difficulty). Therefore, the following is proposed:
Hypothesis 7: Switching costs has a direct positive relation with selection difficulty.

Furthermore, based on the conceptual definition of switching costs and decision avoidance switching costs will have a positive impact on decision avoidance.

Hypothesis 8: switching costs has a positive impact on decision avoidance

Selection difficulty is a state of mental uneasiness caused by comparing alternatives for the purpose of choosing one alternative (and forgoing others) from a pool of different choices. In other words, selection difficulty is the judgment by an individual of which alternative will offer him/her the best utility. In many studies selection difficulty was associated with decision avoidance. Fewer studies investigated the nature of the relationship between the two. This case study proposes that selection difficulty influences decision avoidance indirectly through triggering negative emotional state leading to hesitation and delay of purchase. This concept was supported by different authors [41], who stress the impact of uncertainty in influencing negative emotion which in turn impacts the decision behavior. In study aimed to understand consumer behavior in difficult choices, Luce [36] also confirms through various experiments the sequence of causality from difficulty of "tradeoff" between alternatives to negative anticipated regret of potential switch to decision avoidance. When decision maker is ought to make a decision from a wide spectrum of similar choices, his/her anticipated regret will increase since his/her choice implies missing opportunity of other choices and therefore increased counterfactual thinking.

Hypothesis 9: selection difficulty has a positive impact on anticipated regret

4. BROADBAND IN LEBANON

Lebanon was one of the first countries in the Middle East to introduce internet (dial up connection) as early as 1996. However, broadband lines through ADSL connection was only recently introduced in the Lebanese market in year 2007; and wireless data connection was available for residents from 2004. In Lebanon, the MOT still owns the basic infrastructure lines however there are around 23 licensed service providers including 17 internet service providers

ISPs and six data service providers DSPs [42]. In addition the government operated MoT/Ogero still enjoys biggest market penetration even though its prices are from 10% to 43% more expensive than private ISPs.

The internet connection in Lebanon is characterized by the high installation fees required to set up the connection and buy the modem. For example one broadband package by Sodetel is as follows: DSL 256 kbps, set up and installation fees equal to USD 58, modem fees equal to USD 40 and monthly fees equal to USD 35.99 per month. Moreover, providers may have limited download capacity granted to each subscriber. Recently companies started to compete through offering packages such as double speed internet or unlimited capacity at night. DSL internet providers with highest market penetration are MOT/Ogero, Cyberia, IDM, Terranet and Sodetel. Whereas wireless internet providers available in the market are MOBI, WISE and iFly. All internet service providers offer residential subscription between 128 Kbps and 1024 Kbps.

5. ANALYSIS

A survey of 50 questions was delivered online through an online advertisement system directed toward Lebanese public. As an incentive, every individual who completes the survey was given a chance (by lottery) to win prizes where the maximum prize is a 200 USD in cash. Overall there were 380 completed surveys. Average age of respondents was 27.46 years. 76.9 percent of the respondents were males, whereas only 23.1 percent were females. The majority of respondents (64%) have household disposable income of 1600 USD or less. 77.4 percent of the respondents have university degree or currently enrolled in university.

Table 1: The table that shows usage behavior of survey respondents

	Value	Percentage (%)
Service provider	Ogero	29.6
	Sodetel	5.2
	Terranet	6.1
	IDM	12.2
	Cyberia	6.4
	MOBI	6.1
	WISE	5.4
	Others/I don't know	28.9
Usage: hrs per day	1 hour or less	1.9
	2-3 hours	4.5
	3-4 hours	9.6
	4-5 hours	15.1
	5-6 hours	17.2
	6-7 hours	11.3
	7 hours or more	40.5
Cost per month (before tax)	19 USD or less	2.1
	23 USD	21.9
	33 USD	23.8
	40 USD	21.9
	47 USD	19.1
	70 USD	3.3
	70 USD or more	8.0
Speed	56 kbps	4.9
	128 kbps	18.6
	256 kbps	35.1
	512 kbps	24.9
	1024 kbps	4.5
	I don't know	12.0

Results

In order to evaluate the aforementioned hypotheses, structure equation modeling (SEM) technique was used. However it is customary to conduct a confirmatory factor analysis to investigate the reliability of the measures mentioned in the survey. To that effect, factor analysis with Direct Oblimin rotation was performed. Table 5.4 represent the results of the factor analysis.

As seen below, factor analysis yielded 7 factors. An item with highest loading for each factor corresponds directly to the items asked in the survey. Furthermore, the Kaiser-Meyer-Olkin

(KMO) statistic used to verify the reliability of factor analysis had the value of 8.48 whereas KMO results of higher than 8.0 are generally considered as indication of adequate factor analysis meaning that correlations are relatively compact and factor analysis should yield to reliable factors. Finally, Bartlett's test of sphercity was also highly significant ($p<0.001$) which means that the correlation matrix is not an identity matrix

Table 2: Empirical results

Factor	Item	Factor loading	C. Alpha
SB	Efficiency	.925	.926
SB	productivity	.902	
SB	Important	.885	
SB	Improve usage	.881	
DA	Status quo preference	.906	.827
DA	Delay decision	.857	
DA	Require more time	.724	
PNB	Worthy of money	.836	.778
PNB	Better than current	.751	
PNB	Economical	,746	
PNB	Worth time and effort	.423	
SC	Switch is hassle	.862	.799
SC	Switch is costly	.739	
SC	Takes effort	.723	
SC	Takes money	.644	
AR	Anticipate regret	.848	.798
AR	Curious about other alternative	.806	
AR	Upset due to better alternative	.759	
SI	I will switch	.894	.904
SI	Intention to take action	.806	
SI	Switching likeliness	.801	
SD	Confusion	.846	.826
SD	Difficulty	.835	
SD	Comparison cost	.728	
SD	Number of choices	.637	

Table 5.4: SB= switching benefit, DA= decision avoidance, PNB= perceived net benefit, SC= switching costs, AR= anticipated regret, C. Alpha = Cronabach Alpha

Structure Equation Modeling

We use structure equation modeling technique (via AMOS 7.0) to verify relations among constructs based on the aforementioned hypotheses. Figure 2 shows the results. As suggested in the hypotheses, the relationship between perceived net benefit and switching intention is positive and statistically significant. Perceived net benefit is the dominant factor influencing the intention to switch. Moreover, the impact of decision avoidance on switching intention is negative value and statistically significant. This implies that even when customers have overall positive attitude,

decision avoidance principle may hinder their switching behavior. In addition, Decision avoidance also plays an important role as intermediary between anticipated regret and switching intention. Selection difficulty, as predicted, contributed positively to the anticipated regret factor.

To know to which extent the model represents the sampled data, the GFI (Goodness of Fit) index was conducted. The GFI index ranges from 0.0 to 1.0 where 1.0 indicates an ideal fit. Values higher than 0.9 are generally acceptable as a good fit. The GFI value obtained was 0.919 indicating an acceptable fit to the data. Another measure, comparative fit index (CFI), was also evaluated. The values of CFI range from 0.0 to 1.0 with values higher than 0.95 indicate a good fit. The CFI of the model was 0.951. Finally the root mean square error of approximation (RMSEA) was evaluated. In general values below .05 indicate a good fit and values up to .08 indicate reasonable errors of approximations or mediocre fit. Some researchers suggest that values up to .06 as indicative of a good fit [43]. In the model a value of .051 was obtained. This value is close to the generally accepted value and less than .06 and it is accepted as indication of a good fit.

In general all proposed hypotheses were supported. The clear positive relation between perceived switch benefit and switch intention (H3) is confirmed. This implies that for consumer, economic assessment of gain and loss play a significant role in decision on switching behavior. However, the support of positive relation between decision avoidance and switching intention (H5) suggests that even when customers perceive high value of an upgrade, they may not always commit to switching. In previous literature, switching costs such as time, money and effort were studied as the main factors which contribute to the status quo bias. In the analysis switching costs did not only contribute negatively perceived net benefit (H1), but also switching costs had significant positive relations with psychological barriers: anticipated regret (H6), selection difficulty (H7) and decision avoidance (H8). The study also confirmed that selection difficulty among different available broadband packages alternatives is a key factor that influence post selection anticipated regret (H8). Anticipated regret on the other hand is a key factor that obstruct decision making identified here as decision avoidance (H4). Anticipated regret therefore mediates difficulty of selection of an alternative and decision avoidance.

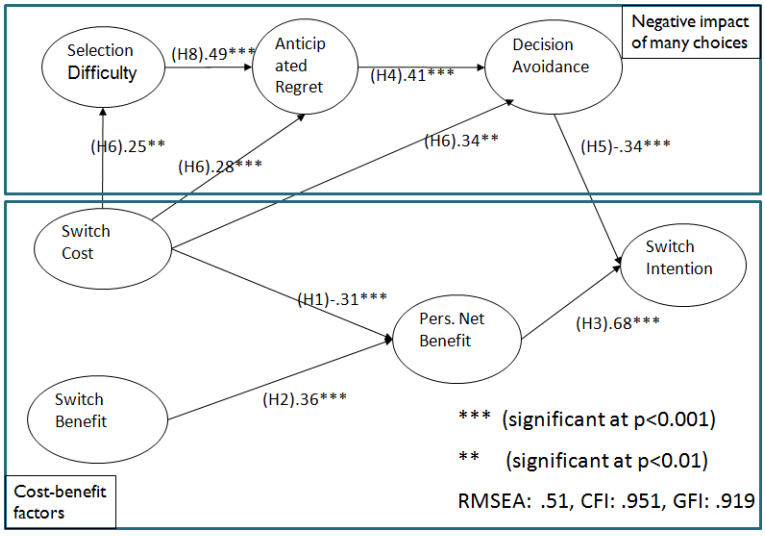


Figure 2: Result of the model

6. DISCUSSIONS AND CONCLUSION

6.1 Discussion

This study falls within a broad range of recent studies that give significant influence of psychological factors in the decision making process of consumers. As seen in the study, the psychological factors should not be marginalized, neither are economic aspects to be marginalized, but they are emphasized together. This study confirms previous theories and experimental studies which indicate that, in addition to these costs, psychological misperception such as anticipated regret must not be underestimated. The analysis showed that decision avoidance is a mediator between anticipated regret and switching intention. Decision avoidance is significant factor that influence switching intention. These results have important managerial implications. First, contrary to the common belief, a wider selection of alternatives may not always be for the benefit of the customer. Higher number of choices increases selection difficulty which leads to higher switching cost and anticipated regret. A tradeoff should be reached between having a package which suits different customers segments and making the choices overcomplicated to choose from.

This study falls within a broad range of recent studies that give significant influence of psychological factors in decisions that consumers make. Experimental studies found that consumers exhibit strong status quo bias without addressing the question of importance of status quo in decision making [21]. This study however deviates from the experimental approach followed by vast majority of researchers in behavioral sciences to identify the extent to which consumer's status quo influence decision making and to better understand the characteristics of status quo. This study illustrates that psychological factors should be taken together with economic factors. As this study discussed a hypothetical transition between alternative broadband packages, it was not possible to observe the real action taken by customers. However, switching

intention is considered a proxy for their future actions. The study focuses on decision procrastination (modeled through decision avoidance) in contrast to action procrastination as a

significant factor that negatively impact switching intention. Moreover, this study included factors that were traditionally considered to impact major consumer choices such as "purchase of house" or "purchase of car". These factors such as anticipated regret were shown to be significant also in influencing regular consumer choice of broadband package. Finally, switching costs proved to be a significant factor that influence decision making on different levels, first it negatively contribute to the perceived net benefit of upgrade. Furthermore, it is significant in influencing psychological barriers such as decision avoidance and anticipated regret. The rationale behind these relations is that without switching costs consumer has nothing to lose and he/she can alternate between different choices until he/she found the right choice. Thus cognitive constrain is minimal if there were no switching costs involved. This study therefore shows that the impact of switching costs can be amplified as they influence factors leading to decision avoidance.

6.2 Implications

This study confirms that switching in broadband industry is subject to psychological constraints which limit switching in general consumer behavior. Various implications can be assumed from the results of this study on both regulatory and managerial levels. The effects of psychological factors were also referred to in a report by the committee for Information, Computer and Communication Policy (ICCP) and Committee on the Consumer Policy (CCP) working under the umbrella of OECD organization (the report will be referred to herein as "OECD report"). The implications in this section will substantiate several recommendations mentioned in that report.
The study results confirmed that selection difficulty is an influencing factor on consumer behavior. This factor is a consequence of the confusion, incomparable information and overload of information which leads customers to refrain from decision making. The study therefore supports the recommendation in OECD report [1] on the "regulation of information disclosure" which recommends regulators to promote better information disclosure in such a way not to cause increased cognitive processing for consumers. In other words, what is required is easily processed information for features commonly used and needed by users rather than more detailed and sophisticated information disclosure. In short, regulators should require information presented by telecommunication companies be precise, appropriate, accurate and transparent and easily comparable.

An applicable generalization to this argument can be made in bundling services. In terms of bundling, in the past years with convergence occurring in the telecommunication industry, more services are offered together such as broadband and mobile telephony services. While such bundles usually reduce costs of buying separate service individually, the overall impact of bundles in the markets should also consider the impact that variability of these bundles may lead to confusion and consumers may end up choosing a package that is not optimal for them or avoid choosing any package. Therefore, this study also substantiate the recommendation given in the OECD report [1] which suggest companies offering bundles to change information and price presentation into a more standardized easily comparable form especially when these services become more complex and on the edge of having more innovative technologies such as next generation networks (NGN).

This study also showed that anticipated regret is an important obstacle in switching behavior. Therefore, it is recommended that companies offer trial periods so that they can rollback their decision if they are not satisfied with the new service. This will reduce anticipated regret as customers can always go back to the original state or make a different choice with minimal losses.

Finally, this study affirms the importance role of consumer groups in educating consumers about available alternatives and the benefits of switch. These are also important in teaching customers about their own biases and how to make better decisions.

6.3 Limitations

The model presented in this case study was simplified to highlight the importance of psychological commitment to status quo on switching intention. Subjective norms, quality of the service and other factors may play an important role as well in switching intention. Furthermore,

this study was done in Lebanon where the broadband industry is still evolving and desire for higher speed of internet is evident. In developed country, a different model may be expected as customers might be more satisfied with their existing internet connection speed.

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