Decision in the Context of Unique and Common Characteristics

Consumer Choice based on Comparative Judgments between Options

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Abstract

This paper is related to the decision making field instated in cognitive psychology. Consumer choice is a process which is based on comparative judgments of similarity and preference according to the available options. So, will a new alternative (ternary context) affect the relative attractiveness of the previous options (binary context)? In response to this question there are different models: Focus and Cancel model of Dhar and Sherman (1996), associated with the Feature Matching (FM) model of Tversky (1977), the Elimination by Aspects (EBA) model of Tversky (1972) and Conflict-Mediated Choice (CMC) of Scholten (2002). Latter two models, both assume that “irrelevant alternatives" according to Value Maximizing (VM) model, can influence the probabilities of choice.

The hypothesis of Aversion to Extreme Options (AEO) of Simonson and Tversky (1989) integrated on CMC model suggests that the intermediate option is preferred in the presence of two extreme options (Effect of commitment). The Effect of Attraction for Relatively Superior Options (ARSO) states: an alternative due to its relatively lower nature (and therefore is not selected), provides the option of choosing the more similar one.

The present research was based on an experimental study (4 conditions), which involved the application of questionnaires to higher education students and resulted in a between-subjects design. The T-test revealed: It is confirmed more predictions concerning FM / EBA models than the CMC model. The model AEO was not observed as expected; only the ARSO effect was registered in some cases.

Introduction

Making comparisons is a fundamental psychological process, and many of our judgments of similarity and preference involve comparing attributes of a set of options available. Therefore, a proper understanding of the decision`s behavior requires an analysis of the relative preference`s option, as compared to other alternatives.

A range of options may include good and/or bad, unique and/or common features. Good features refer to positive aspects of a particular subject or product. Giving an example, we can choose a washing machine based on their positive attributes, such as: reduced time and flushing effectiveness, low consumption of electricity and water, maximum safety, etc. But we are also aware that nowadays, there is a systematic competition between brands, resulting in a certain similarity between products of each brand. Returning to the previous example, almost all washing machines, get dry clothes, or possess many programs, in other words, they share common features between them. However, some brands are distinguished

from other because their products have unique characteristics that are its competitive advantage (for example, certified technical assistance).

Research Problem, Objectives and Plan

Turning our attention to the judgments of similarity and preference, those involve comparing attributes of a set of options available. Exemplifying a problem based (partially) in the original study of Dhar and Sherman (1996), suppose that you are planning a vacation and you have received information about the attributes of each of the three vacation spots, looking to Table 1, you can select one of three options with common or unique good features.

Table 1 - three options of choice (vacations spots).

Spot Y	Spot X	Spot Z
good restaurants	good restaurants	Full of nightlife
attractive beaches	attractive beaches	Wonderful landscapes
good theater	good museums	good museums
modernized transports	tropical climate	tropical climate

Assuming that an option (Spot Y) is introduced into a range of options (X, Z), in this case, according to the FM/EBA model, the option Y will penalize option X, since although not share characteristics with Z, shares attributes with X.

On the other hand, from the perspective of CMC model, the presence of spot Y will prompt the propensity for the choice of spot X, therefore, in the triadic context, towards the two extreme options, Y and Z, the option X is viewed as an intermediate option. Therefore, the option X will solve partially the conflict raised by Y and Z (both have unique and shared characteristics with X).

The underlying causes of a conflict may be different, such as a large cognitive effort due to the high number of arguments about the options (Dhar, 1997; Simonson, 1989), the latency of time to make a decision (Festinger, 1964; Fischer et al., 2000; Kiesler, 1966; Tyebjee, 1979), great inconsistency between the decisions taken at different times (Fisher et al., 2000; Tversky, 1972), high difficulty finding a decision (Chatterjee & Heath, 1996; Simonson, 1989) and reduced confidence in the decision (Fischer et al., 2000; Tversky, 1972). The conflict occurs because the various options generate competition since there are good reasons against and good reasons favor. Thus, they try to justify the choice not only for themselves but also for others (Shafir, Simonson & Tversky, 1997).

Assuming an option X (for example, a trip to Paris + bonus) includes Y (trip to Paris), the comparison is trivial and P(x, y) is maximum. But if X and Y are different, where X = Paris and Y = Rome, a comparison is more difficult, and P(x, y) takes a value less extreme approaching the P(x, y) of ½ (0.5), favoring the occurrence of conflict.

It is important not only to draw conclusions on this work in particular, but also, if necessary, refute existing theories in an attempt to reformulate them or simply add to them a contribution towards additional models preexisting.

It is thought that the analysis of the cognitive mechanism underlying the process of choice has implications for marketing, in particular in relation to the strategies used in advertisements to attract consumers' attention.

Literature review

In order to explain how people solve this conflict, researchers in the area of decision-making resort, traditionally, have two approaches: formal models that integrate an analysis based on value as opposed to models that reflect the informal analysis based on the reason (Shafir et al. 1993).

Value Maximization (VM) model

The VM model assumes an association between numeric values to each of the alternatives; the choice is characterized by the maximum value. The choice between "strong" alternatives according to any one of probabilistic models, including VM, it can generate not only uncertainty but also inconsistency, in that different choices may occur (virtually) under identical conditions. However, the conflict plays no role under the VM model because if we add a third option to the initial choice alternatives, the decision may be postponed or even canceled (Shafir et al. 1997).

Independence of irrelevant alternatives

Still following the principle of VM, the principle of independence of irrelevant alternatives tells us that the preference is not changed by the introduction of additional alternatives, and obeys, fundamentally, to these empirical criteria:

a) the regularity, where $P(x, y, z) \leq P(x, y)$, wherein the absolute popularity of an option cannot be increased by extending the set of options;

b) The proportionality in which $Pz(x, y) = P(x, y)$, where $Pz(x, y) = \{P(x, y, z) / [P(x, y, z) + P(y, x, z)]\}$, it means that the relative popularity of the two options is not affected by the broadening of the range of alternatives.

Choice based on reasons approach

The model based on reason, whose nature is essentially qualitative, identifies several reasons and arguments that influence the decision, explaining the choice as a "balance" that oscillates between against or favor arguments of several alternatives, and not based on the estimated value (Shafir et al. 1997). In this perspective, a choice that presents itself with a certain degree of difficulty (lack of a good argument to choose) can lead to the search for additional options; the context may also play a crucial role in the formation of the reasons for choosing an option over others (Shafir et al. 1997).

Alternative paradigms to VM model

Resuming the results found by Tversky and Shafir (1992): there is a greater tendency to seek additional options when choosing between alternatives is more difficult than when there is a good reason to choose and the decision is easy.

Apparently, these results reveal themselves inconsistent with the principle of VM, because it is supposed that the demand for additional alternatives depends not only on the value of the best option available, but also of difficulty in choosing among other options. So, if we have a good argument to choose one of the options, among others, it reduces the need to seek additional alternatives. But also, the attractiveness of an alternative can be enhanced or attenuated by manipulating the context of choice.

Elimination by Aspects (EBA) model

Opposing the VM model, the EBA model of Tversky (1972), although not doing a direct reference to the conflict, has the underlying notion that the likelihood of an alternative is selected depends not only on its overall value, but also of its relations with the other alternatives available. The model predicts that if X and Y are products that belong to the

market then the relative advantage of X for Y is maximized when other products are more similar to Y and dissimilar of X. So, the selection reflects a "increasing function" of the values assumed by the relevant aspects. Therefore, each point (and not each option, as is assumed for most models) belonging to the range of dimensions of each of the alternatives is selected in a given process step.

One implication of the EBA model is the effect of substitution; when the attributes are equally attractive there is a tendency to negative effects of similarity between "nearest neighbors" (Scholten, 2002). For example, Pz (x, y) < P (x, y), when Z option is more similar to option X than with option Y.

Feature Matching (FM) model

In which concerns the preferably judgments, these involve two components (Houston et al., 1989, 1991): on the one hand, the elimination of characteristics shared by alternatives, and on the other hand, the focus on the unique characteristics of the alternative.

Dhar and Sherman (1996), focusing on the difference between the notions of singleness and commonality, exploited the fact that the uniqueness of certain characteristic in a given context of choice can cause the range of options appear more or less attractive, depending on whether a context involving only good or only bad pairs, respectively. Then, when it is added a third alternative (whose good characteristics are common to one of the other two alternatives) this can create a perception of relative uniqueness of a good option with different characteristics, which can by itself increase its preference. Also the negative characteristics of an option which are common with the new alternative become “less relevant” on its presence.

Comparison of EBA and FM models

For both models exposed - EBA and FM - it appears that there is empirical evidence that they convey the notion that preferences depend on the context and the number of options considered. Both paradigms consider (at least when dealing with good or bad features) that a new option disfavor the alternative more similar to each other. However, only the EBA model refers to a type of decision making based on consecutive steps.

Conflict Mediated Choice (CMC) model

According to the CMC model (Scholten, 2002) the effect on the perceived probability of similarity of choice is mediated by the conflict. In addition, this model provides a combination of effects of positive and negative similarity. The decision is then considered as a process of paired comparison (for example, two options X and Y can be "matched" in order to be compared Z).

The Effect of Attraction for relatively Superior Options (ARSO)

In the view of the CMC model, the tendency to prefer an alternative is more or less according to the value that the intermediate option adds to the range of alternatives. If we have the following choice: option Y (GGGG, four equally attractive features), option Z (gggg, four equally attractive features) and option X (GGg, two attributes common to Y and share one attribute with Z). In this case, the conflict resulting from a negotiation between similar options is reduced by the presence of a context of choice options involving dissimilar, then the conflict between the switches (X, Y) is smaller than that between (X, Z); The conflict involved in selecting (X, Y) are partially solved by the attraction effect through the options relatively higher, is more likely that Y would benefit from attraction effect for the options relatively higher than Z.

This phenomenon was designated for Huber, Payne and Puto (1982) as attractive effect for relatively higher options, but Tversky and Simonson (1992) attributed to it the name of Asymmetric Dominance Effect (ADE).

The effect of Aversion to Extreme Options (AEO)

According to the assumptions of Simonson (1989, cited by Shafir et al., 1997), in a context based on extreme options, these are less attractive than those with intermediate values - effect of aversion to extremes - framed such as the effect of attraction for relatively higher options in the CMC model. This idea has an analogy with the compromise effect (Simonson, 1989): it is assumed that the intermediate option is a compromise choice that is easier to protect than the extreme options.

Developing the research model and Hypotheses

Generally, we intend to investigate the impact that the perception of similarity between the options has in the relative popularity among the alternatives previously available. In addition, is given emphasis to the unique characteristics that becomes decisive for decision making. We are trying to know if the introduction of a third option, will serve as an incitement for the perception of similarity versus uniqueness compared to other alternatives, thereby affecting the probability of choice. Furthermore, the new option can also become preferred when it is considered intermediate. It is intended to oppose the FM model of Tversky, which served as a basis for the formulation of the paradigm "focus and cancel" of Dhar and Sherman (and having an affinity relative to the EBA model), with the CMC model (aversion to extreme options and attractiveness to relatively superior options). Given these assumptions, it is expected that the probability of one option be selected is not always greater than ½ (50%) because of their extreme attributes that causes a reluctance on decision.

However, it is also important to consider the cases where the option added to the array of choice, is not exactly intermediate, but relatively inferior. An example: Y e Z have extreme options`s caracteristics (GGGG and gggg, respectively) and X has similar attributes to each of the options (GGg). Globally (in these cases) it is expected that: under the effect of unique features and substitution, due to FM and EBA models, $Px (Y, Z) < P (Y, Z)$, on the contrary, in agree with the attraction for relatively higher options effect, $Px (Y, Z) > P (Y, Z)$.

Specifically, the design of this study refers to eight good characteristics in which four G`s are associated with the option Y and four g's are related to the option Z. The option X shares attributes with the other two alternatives, therefore, has no unique characteristics when under a ternary context. Option X assume the designations and attributes: I (GGGg), II (Gggg), III (GGgg) , IV (GGg), V (Ggg), VI (Gg).

Looking to Table 2, being considered as an explanatory study we formulated hypotheses.

Table 2 – Research assumption for FM/EBA e CMC models (eighteen hypotheses).

	Hypotheses of **FM/EBA model**	Hypotheses of **CMC model**
Inclusion of option I from available options	$P_I(Y;Z) < P(Y;Z)$ $\mathbf{P_y(I;Z) < P(I;Z)}$ $\mathbf{P_z(I;Y) < P(I;Y)}$	$P_I(Y;Z) < P(Y;Z)$ $\mathbf{P_y(I;Z) > P(I;Z)}$ $\mathbf{P_z(I;Y) > P(I;Y)}$
Inclusion of option II from available options	$P_{II}(Y;Z) > P(Y;Z)$ $\mathbf{P_y(II;Z) < P(II;Z)}$ $\mathbf{P_z(II;Y) < P(II;Y)}$	$P_{II}(Y;Z) > P(Y;Z)$ $\mathbf{P_y(II;Z) > P(II;Z)}$ $\mathbf{P_z(II;Y) > P(II;Y)}$
Inclusion of option III from available options	$P_{III}(Y;Z) = P(Y;Z)$ $\mathbf{P_y(III;Z) < P(III;Z)}$ $\mathbf{P_z(III;Y) < P(III;Y)}$	$P_{III}(Y;Z) = P(Y;Z)$ $\mathbf{P_y(III;Z) > P(III;Z)}$ $\mathbf{P_z(III;Y) > P(III;Y)}$
Inclusion of option IV from available options	$\mathbf{P_{IV}(Y;Z) < P(Y;Z)}$ $P_y(IV;Z) < P(IV;Z)$ $P_z(IV;Y) < P(IV;Y)$	$\mathbf{P_{IV}(Y;Z) > P(Y;Z)}$ $P_y(IV;Z) < P(IV;Z)$ $P_z(IV;Y) < P(IV;Y)$
Inclusion of option V from available options	$\mathbf{P_V(Y;Z) > P(Y;Z)}$ $P_y(V;Z) < P(V;Z)$ $P_z(V;Y) < P(V;Y)$	$\mathbf{P_V(Y;Z) < P(Y;Z)}$ $P_y(V;Z) < P(V;Z)$ $P_z(V;Y) < P(V;Y)$
Inclusion of option VI from available options	$P_{VI}(Y;Z) = P(Y;Z)$ $P_y(VI;Z) < P(VI;Z)$ $P_z(VI;Y) < P(VI;Y)$	$P_{VI}(Y;Z) = P(Y;Z)$ $P_y(VI;Z) < P(VI;Z)$ $P_z(VI;Y) < P(VI;Y)$

Legend: eighteen hypotheses relative to **FM/EBA model** (for example, H1a…until H18b) and hypotheses relative to **FM/EBA model** (for example, H1b…until H18b).

Population and Sample design

The sample included 30 subjects in the *pre-test* of both sex (students of College of Applied Psychology, ISPA, Portugal), whose ages varied between 20 and 35 years old. Later we proceeded to a second administration of the questionnaires for a sample of 324 subjects (144 students of ISPA and 180 students from ESTIG, Technology and Management School of Beja), of both sex (37,7% male, 62,3% female) and ages between 20 and 50 years old.

Unlike the distribution of the sample, the sampling is non-random, for convenience (from a population of college students), since the relatively high level of knowledge in the digital literacy and other electronic products (televisions, camcorders, etc).

Research Design and Data Collection

With regard to the context, it can be designate as laboratory study, allowing greater ease to detect sources of bias. In this case, the questionnaires were administered in various classroom`s universities at the beginning or end of each session, so as not to disturb the teacher's explanation. Moreover, the design takes the form of an experimental study, given the control (by manipulating a variable) of exogenous variables. This is the manipulation of the choosing effect, as regards the perception of uniqueness/commonality that people have facing a range of two (equally attractive) or three options.

In the temporal context, the description of the study is cross-cut (transversal), but with longitudinal aspects, because although they are different subjects being assessed, it is intended to investigate (not just a single state/behavior but) their preferences for both contexts. So, experimental conditions are applied in order to proceed to the comparison of two different groups - one that is the measure of control (dyadic context) and another, the triadic context. Therefore, design is between-subjects, wherein each subject is exposed only one experimental

condition was subsequently performing a comparison between subjects. In total we obtain four experimental conditions that can follow one of two types: Each item of the questionnaire has 2 options (Y – X ou X – Z ou Y –Z); Or each item of the questionnaire has 3 options {X, Y, Z}.

Also, the study underlying to this research can be classified as the goal in itself, as explanatory as it seeks confirmation of the existence of causality in relation to the variables under study.

Data analysis and model testing

Data collection was based on an instrument originally built for the purpose of the study. The questionnaire was made from a data collection magazine *protest*[1], being made an exhaustive survey of characteristics (16 for each of the nine products) associated with each product. In order to avoid that the attributes were ambiguous or unclear, we made a selection of the best attributes of a group of six people who pointed out some mistakes or doubts regarding to the attributes. In the case of good features shown, each participant positioned his opinion, through a nine-point scale (ranging from "attractive" to the "extremely attractive", wherein the intermediate point is the "very attractive").

With the purpose of obtaining data more accurate and consistent, were constructed three questionnaires (A, B and C, each of which was applied to 10 subjects) for the pretest. Although all had the same content (refer to the same products and associated features), differed in their structure, in that the order of presentation of the issues related to the products and even their respective attributes, were changed between questionnaires.

The questionnaires used in the pretest had several issues traduced in the form of sentences (in total, 144 characteristics for each of the 16 products) which characterized each of them as a positive product. After, the following product`s attributes has been selected: the car (air conditioning, dual airbag, power steering, etc), the shampoo (smoothness, effective cleaning, hypoallergenic, brightness, etc.), the computer (DVD-ROM, CD burner, multimedia keyboard, etc), the TV (automatic search and pre-selection, teletext, good reception, etc), the camera (high focal length/zoom, excellent versatility, built-in flash, etc), the phone (small size, high-fidelity sound , long battery life, etc), the digital video camera (connecting to a PC with a DV output, autofocus, optical zoom, etc), the dishwasher (low power consumption, quiet washing, drying almost perfect, ease of use, etc), and the electrical heater (facility of transport of the materials with high strength, easy to clean, etc).

Some of these features (8 of 16 in each group) were selected from a statistical analysis, data collected were recorded in SPSS, and graphics allowed to know what the best items and select the attributes, as well as the internal consistency index (N total, alpha .9724). At the end, the eight aspects equally attractive manner used to construct the final questionnaire, wherein each item (6 products all together) concerns two options (a first version) or the three options (in a second version). The total time of the questionnaires had no restriction; it is assumed that the time of administration did not exceed 10 to 15 minutes (pre-test) and 5 to 10 minutes (final questionnaire). After application, the data were entered into the program SPSS, but the frequencies obtained for the responses were made from the Statistic program. Then we proceeded to a statistical analysis, t-test of the "P95", which is indicated for the comparison of means, for nominal variables such as the choice of Y, Z and/or X.

[1] Deco, consumer`s defense magazine (1999-2000)

The results of testing hypotheses and its structural paths

Table 3 - Sumary output of the conclusions about validity of available options.

Hypotheses (FM/EBA e CMC models)	*p*	level of S.D.	hypotheses Validation
FM/EBA e CMC: $P_I(Y;Z) < P(Y;Z)$	.456	no S.D.	H1a/H1b: false
FM/EBA: $P_Y(I;Z) < P(I;Z)$; CMC: $P_Y(I;Z) > P(I;Z)$	.004	S.D.	H2a (FM/EBA): true
FM/EBA: $P_Z(I;Y) < P(I;Y)$; CMC: $P_Z(I;Y) > P(I;Y)$	.074	S.D	H3a (FM/EBA): true
FM/EBA e CMC: $P_{II}(Y;Z) > P(Y;Z)$	.354	no S.D.	H4a/H4b: false
FM/EBA: $P_Y(II;Z) < P(II;Z)$; CMC: $P_Y(II;Z) > P(II;Z)$	.107	S.D.	H5a (FM/EBA): true
FM/EBA: $P_Z(II;Y) < P(II;Y)$; CMC: $P_Z(II;Y) > P(II;Y)$	.168	no S.D.	H6a/H6b: false
FM/EBA e CMC: $P_{III}(Y;Z) = P(Y;Z)$	.101	S.D.	H7a/H7b: false
FM/EBA: $P_Y(III;Z) < P(III;Z)$; CMC: $P_Y(III;Z) > P(III;Z)$	.017	S.D.	H8a (FM/EBA): true
FM/EBA: $P_Z(III;Y) < P(III;Y)$; CMC: $P_Z(III;Y) > P(III;Y)$	.297	no S.D	H9a/H9b: false
FM/EBA: $P_{IV}(Y;Z) < P(Y;Z)$; CMC: $P_{IV}(Y;Z) > P(Y;Z)$	.051	S.D.	H10b (CMC): true
FM/EBA e CMC: $P_Y(IV;Z) < P(IV;Z)$	.255	no S.D	H11a/H11b: false
FM/EBA e CMC: $P_Z(IV;Y) < P(IV;Y)$	.130	no S.D	H12a/H12b: false
FM/EBA: $P_V(Y;Z) > P(Y;Z)$; CMC: $P_V(Y;Z) < P(Y;Z)$	.438	no S.D	H13a/H13b: false
FM/EBA e CMC: $P_Y(V;Z) < P(V;Z)$	.149	no S.D	H14a/H14b: false
FM/EBA e CMC: $P_Z(V;Y) < P(V;Y)$	.403	no S.D	H15a/H15b: false
FM/EBA e CMC: $P_{VI}(Y;Z) = P(Y;Z)$	.474	no S.D	H16a/H16b: true
FM/EBA e CMC: $P_Y(VI;Z) < P(VI;Z)$	.259	no S.D	H17a/H17b: false
FM/EBA e CMC: $P_Z(VI;Y) < P(VI;Y)$	.102	S.D.	H18a/H18b: true

Legend: Hypotheses refer to: Inclusion of option X (I, II, III, IV, V or VI) from available options (Y; Z); Inclusion of option Z from available options (X; Y); Inclusion of option Y from available options (X; Z). S.D. (Significant Difference); true (confirmed assumption, $p \leq .10$) what means that hypothesis is confirmed; false (rejected assumption, $p \geq .10$) what means that hypothesis is not confirmed.

Discussions and Conclusion

The objectives that have been demarcated on the basis of the analysis of models (tested) were achieved, although most cases were not validated. Even so, it appears that more assumptions have been accepted within the model FM/EBA than those which are based on the model CMC.

With the aim of refuting the hypotheses of FM/EBA model, eleven (in total eighteen) were rejected, given the lack of verification of significant differences between the mean responses of a particular option in binary and ternary context. Congruently, it was found that the choice I in both contexts (in the situation where the option Y, whether the option Z, was included in the initial range) was disfavored, which is justified by perception of similarity introduced by the new option.

In what concerns option II, its devaluation was present only when integrated in the context of Y, but the same did not happen, in the context of Z. Focusing still in context of II, the result (the rejection of the hypothesis H4a and H4b) is somewhat surprising and interesting, since it would point, firstly, that the inclusion of II had a positive effect on propensity for choosing one of the extreme options (in this case Y), because it is the one that

shares less attributes with the new alternative (compared with the option Z) - or, on the other hand, Y tend to be preferred (in the context of II) but from a different perspective: the conflict between the two extreme options tend to be appeased by the presence of II.

Inexplicably, at least apparently, also H7a and H7b were eliminated because, contrary to what was assumed, significant differences were found. Specifically, the popularity of Y was superior in diadic than triadic context, so the presence of X, despite being intermediate, seems to have a negative effect on the probability of choice for that option. In this case, the results inferred for a inadequacy for both models, FM/EBA and CMC.

Despite the validity assigned to H8a, III loses popularity with Y option`s inclusion, because the introduction of two similar attributes, however, this did not happen to H9a because there was a result inconsistent with what was expected in logical terms. The only case in which the hypothesis of CMC model was proven in exclusive way was the H10b, being the one that got significant results. Option Y beneficiate by effect of the attractive for relatively higher options when the alternative relatively lower (IV) was also present.

Turning our attention to assumptions of H12a e H12b, it seems that, for different explanations (depending on the models are adopted, FM/EBA or CMC), the alternative IV has a lower propensity to be selected when a new alternative is added (Z) than in the absence (binary context); albeit with some reservations: being aware of the necessary precautions for safety acceptance or not of these hypothesis because the *p value*. Justifying this result in light of the FM/EBA models, IV loses popularity in the ternary context because Z share an attribute with that option (one that distinguishes it from Y), which disfavors IV. According to CMC model, we got a different conclusion: IV is relatively lower and thus less likely to be chosen. With regard to the results relating to the inclusion of the V option, there are no significant differences between the probabilities of choice in the context of two or three alternatives.

Contrary to H7a and H7b, hypothesis H16a and H16b were confirmed, revealing: a new alternative VI does not have a very marked influence on the propensity to select the Y. Moreover, these results are inconsistent with the remaining hypotheses; not being evidenced s.d., since the probability of being selected VI is smaller in the context of Z. In fact, the effect of similarity perceived between VI and Z options induces a reluctance to choose VI and, in another sense, the perceptual effect inherent to the relatively inferior alternative context, avoid her selection.

Limitations and Futher research

In my opinion, the study showed some restrictions on findings, particularly because of the disparity between the results for the various hypotheses: logically it doesn`t makes no sense that some are confirmed and others rejected, knowing by analogy, following the same reasoning.

One possible explanation underlying the empirical data obtained could be the cause of global constitution of the sample: perhaps due to heterogeneity (students of university, whose courses differ in terms of their nature of study). That is, if we consider that the subjects are from different socio-cultural context (Lisbon and Beja), as well as study area, so we can assume that such factors may exert some discrepancy in the weight of some results, considering that some products refer for technical expertise. In this point of view, we propose some improvements for future research, ideally using a Design Within subjects. Furthermore it would be appropriate to include in the questionnaire less specific attributes and too many technical terms. Another possible reason relates to the type of presentation of the various features (in bold italics, depending on their uniqueness and commonality, respectively), exerts a preponderance of the results.

In another perspective, this study allowed us to analyze certain theoretical models referenced in the literature as to its veracity. Precisely, we detected some controversy in the argumentation of Simonson and Tversky (1992, 1993), concerning the theory of ADE. The authors theorized, according to the CMC model, the introduction of a third alternative in the range of options it favors the option that dominates. According to them, the explanation of this phenomenon is just about the ways of the alternatives are presented, not just the knowledge you may have of them.

The first part of the this article begins by calling into question the VM model, however, the thesis of this investigation raise some controversy address this issue, what motivates us to emphasize again, the importance of implementation further studies. It is important to extend the sample (size) and the search field: ask not just the context of choice with good characteristics (single and common) but also bad characteristics. Since, there are some interesting findings, for example: different results for the good and bad unique pairs, obtained in studies carried out by Dhar and Sherman 1996. Additionally, it would be exciting to explore the issue of no choice or delay, as did the researchers Meyer and Eagle (1982) and Tversky (1972, cited by Dhar & Sherman, 1996).

References

Baker, S., Houston, D. and Sherman, S. (1989), "The influence of unique features and direction of comparison on preferences", *Journal of Experimental Social Psychology*, Vol. 25, pp: 121-141.

Baker, S., Houston, D. and Sherman, S. (1991), "Feature matching, unique features, and the dynamics of the choice process: predecision conflict and posdecision satisfaction", *Journal of Experimental Social Psychology*, Vol. 27, pp: 411-430.

Chartterjee, S. and Heath, T. (1996). "Conflict and loss aversion in multiattribute choice: The effects of trade-off size and reference dependence on decision difficulty". *Organizational Behavior and Human Decision Processes*, Vol. 67, pp: 144-155.

Chernev, A. (1997), "The effect of common features and brand choice: moderating role of attribute importance", *Journal of Consumer Research*, Vol. 23, pp: 304-311.

Dhar, R. (1997). "Consumer preference for a no-choice option". *Journal of Consumer Research*, Vol. 24, pp: 215-231.

Dhar, R., and Sherman, S. (1996), "The effect of common and unique features in consumer choice", *Journal of Consumer Research*, Vol. 23, pp: 193-203.

Festinger, L. (1964). "Conflict, decision and dissonance". Stanford, CA: Stanford University Press.

Fischer, G., Luce, M. and Jia, J. (2000). "Attribute conflict and preference uncertainty: Effects on judgment time and error". *Management Science*, Vol. 46, pp: 88-103.

Houston, D., and Sherman, S. (1995), "Cancellation and focus: the role of shared and

unique features in the choice process", *Journal of Experimental Social Psychology*, Vol. 31, pp: 357-378.

Huber, J., Payne, J. and Puto, C. (1982). "Adding Asymmetrically Dominated Alternatives: Violations of regularity and the similarity hypothesis". *Journal of Consumer Research*, Vol. 16, pp: 158-174.

Kiesler, C. (1966). "Conflict and number of choice alternatives". *Psychological Reports.* Vol. 9, pp: 90-98.

Mellers, B., and Biagini, K. (1994), "Similarity and choice", *Psychological Review*, Vol. 101 (3), pp: 505-518.

Scholten, M. (2002), "Conflict-mediated choice", *Organizational Behavior and Human Decision Processes*, Vol. 88 (2), pp: 683-718.

Shafir, E., Simonson, I., and Tversky, A. (1997), "Reason based choice", In W. Goldstein and R. Hogarth (Eds), *Research on Judgment and Decision Making*, Cambridge University Press, pp: 69-94.

Simonson, I. (1989). "Choice based on reasons: the case of attraction and compromise effects". *Journal of Consumer Research*, Vol. 16, pp: 158-174.

Simonson, I., and Tversky, A. (1992), "Choice in context: tradeoff contrast and extremeness aversion", *Journal of Marketing Research*, Vol. 29, pp: 281-295.

Tyebjee, T. (1979). "Response time, conflict and involvement in brand choice". *Journal of Consumer Research*, Vol. 6, pp: 295-304.

Tversky, A. (1972), "Elimination by aspects: a theory of choice", *Psychological Review*, Vol. 79 (4), pp: 281-299.

Tversky, A. and Shafir, E. (1992). "Choice under conflict: The dynamics of deferred decision". *Psychological Science*, Vol. 3, pp: 358-361.

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