



GLOBAL JOURNAL OF HUMAN SOCIAL SCIENCE

Volume 11 Issue 2 Version 1.0 March 2011

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

ISSN: 0975-587X

Citizen Participation and Framing Effects: An Empirical Study in Tehran Municipality Expert Idea Bank

By Amir Emami, Behrouz Zarei, Mahsa Ebrahimzadeh

University of Tehran, Tehran, Iran

Abstracts - : Nowadays the societies which are confronted with significant challenges that dealing with them have become the most important concern of the urban managers. Although the managers are considered to be responsible in this regard, citizens might be able to play an even better role by presenting their ideas for cities' problems. Tehran as a metropolis is an example of those cities on their ways to modernization facing with emerging problems and issues. From 2009 a system for accumulation and surveillance of these ideas, is nominated "Idea Bank", is implemented. The Idea Bank is introduced and the impact of the framing effects on experts' judgment and decision making would be analyzed in this research. A sample of 202 expert members of the system is investigated. Based on the obtained results, idea generation resembles expenditure of money in order to buy a good or use a service and from the mental accounting point of view, it creates a mental account. In this research we have indicated that how the conflicts arising from framing effects in people's decision making, could influence experts' decision and judgment for prevention of closing the accounts containing loss, therefore, hazards concerning these effects should be considered as a critical factor for effectiveness of the idea bank.

Keywords: Framing Effects, Mental Accounting, Citizen Participation.

Classification: GJHSS-B Classification: FOR Code: 070106, 160602



Strictly as per the compliance and regulations of:



© 2011. Amir Emami, Behrouz Zarei, Mahsa Ebrahimzadeh. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License (<http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citizen Participation and Framing Effects: An Empirical Study in Tehran Municipality Expert Idea Bank

Amir Emami¹, Behrouz Zarei², Mahsa Ebrahimzadeh

Abstract- Nowadays the societies which are confronted with significant challenges that dealing with them have become the most important concern of the urban managers. Although the managers are considered to be responsible in this regard, citizens might be able to play an even better role by presenting their ideas for cities' problems. Tehran as a metropolis is an example of those cities on their ways to modernization facing with emerging problems and issues. From 2009 a system for accumulation and surveillance of these ideas, is nominated "Idea Bank", is implemented. The Idea Bank is introduced and the impact of the framing effects on experts' judgment and decision making would be analyzed in this research. A sample of 202 expert members of the system is investigated. Based on the obtained results, idea generation resembles expenditure of money in order to buy a good or use a service and from the mental accounting point of view, it creates a mental account. In this research we have indicated that how the conflicts arising from framing effects in people's decision making, could influence experts' decision and judgment for prevention of closing the accounts containing loss, therefore, hazards concerning these effects should be considered as a critical factor for effectiveness of the idea bank.

Keywords- Framing Effects, Mental Accounting, Citizen Participation.

I. INTRODUCTION

Eric Hofer states that "It still holds true that human beings are the most uniquely human when they turn obstacles into opportunities" (Baron and Shane, 2008, p. 38). Opportunity is a situation in which a person can exploit a new idea that has the potential to create a benefit (Baron and Shane, 2008). During recent years, with considerable expansion of Tehran, capital of Iran, the municipality, has been always encountered with critical problems in effectiveness and efficiency of delivering services to citizens, for instance mismanagement, misconduct of projects and misallocation of resources.

To overcome these problems, the municipality needs to codify different kinds of long and short term plans. Those plans must have especial attributes like:

About¹- Author: Researcher, Faculty of Entrepreneurship, University of Tehran, Tehran, Iran

(Telephone: +98 21 33503973 E-mail: a_emami@ent.ut.ac.ir)

About²- Author: Assistant Professor, Faculty of Entrepreneurship, University of Tehran, Tehran, Iran.

(Telephone: +98 21 61119226 E-mail: bzarei@ut.ac.ir)

applicability, effectiveness, efficiency with consideration of opportunities, threats, weaknesses and strengths. Therefore the Strategic Committee department of municipality crucially needs outward ideas from experts of all related civic fields; and a database for scrolling and maintaining the ideas, based on which a system would be enabled to collect the best ideas and have those mentioned attributes for the municipality senior managers. It is called "Municipality Idea Bank" which is able to collect a variety of ideas and can provide many opportunities. By developing such an idea bank, two results will be achieved for the municipality: first solving its own problems, second, increasing the level of citizen participation. Success of this system would depend on subjective values of participants.

In current study on the one hand we advance our knowledge about the necessity and the activities of the Idea bank, and on the other hand, we discuss that how neglecting the subjective values that are influenced by framing effect could jeopardize the efficiency and effectiveness of the idea bank. Furthermore, in this paper we argue that the idea generation as well as making payment in advance would create a mental account which to our knowledge is not investigated in a unique context like an idea bank.

The literature review section covers two areas: citizen participation and idea bank, and framing effects. After describing the research method, empirical tests would be applied. Then the paper discusses the studies' findings and implications and finally conclusion.

II. REVIEW ON FRAMING AND CITIZEN PARTICIPATION STUDIES

1) Citizen participation and Idea Bank

Cities are known as complex systems which have become a challenging phenomenon for all urban managers. Therefore any planning tools recruited must contain innovative and sophisticated attributes, otherwise monitoring will face many obstacles (Rotmans, Asselt & Vellinga, 2000). In purposeful citizen participation system, the voice of members must be listened in the clearest way and the system should provide transparent participation opportunities for the

members (Adamson, 2010). This facilitates urban society to have ideal conversation with agents (i.e., service providers in the city) (Adamson, 2010). In the literature of social engagement it is clearly mentioned that agents' authorities have been considered more responsive in ensuring the engagement, partnership, willingness and capacity of community. The modern society, nowadays, is faced with problematic phenomena such as: Increasing growth of cities, emergence of cluster cities, environmental opportunities and threats, social, political and economical matters, decreasing quality of urban life, rapid change of connection between urban and rural areas (Berner, Bogoyavlenskaya, Lliushin, Kovalev, Rochtchin, 1995; Rotmans, et al., 2000). As it is mentioned earlier, these are the complicated tasks that urban managers need to resolve. Great "ideas" might be one of the best solutions here. Weiss and Carayannis explain "idea" as 'normative or casual beliefs held by individuals that influence their attitudes and actions toward economic and social development'. In addition, an integrated system of gathering ideas and opinions from citizens' experts is required to provide valid and real time information for city top level managers, (Berner, et al., 1995; Rotman, 1998). To achieve this aim, since 2009 an expert's Idea Bank is established in Tehran municipality. Experts groups by generating their ideas, influence policies and programs of the city especially at the time of uncertainty (Haas & Haas, 1995). "Global Ideas Bank" and "Idea A Day" are two famous similar examples of idea bank around the world, the first started in 1985 and the second founded in London in 2000.

The mission of the Idea Bank in Tehran municipality is to use synergy of expert citizens' participation in solving their own city's problems; it is the feature that may distinguish it from the other idea banks. The Tehran idea bank is a website where people post, exchange, discuss, and polish new ideas indirectly with the managers of the city, therefore, it is as part of the municipality's management information system. These experts analyze every event from variety points of view (Weiss & Carayannis, 2001). A good idea is often generated through discussion. Whatsoever, an idea evolves through more different and contradictory points of view (e.g., in a cross-cutting group), would be more rational and mature (Mutz, 2002; Druckman, 2003) that is why in our civic deliberation network we use ideas and opinions from different expertise.

When the ideas are gathered and evaluated by its unique net base system, the best ideas will be chosen by the idea bank's agent. Such ideas are then sent to Tehran Municipality Strategic Committee department (TMSC) in order to be applied in solving problems and modifying the projects.

There are two ways to receive ideas by the idea bank:

- Random idea: when an expert contributes her/his idea for a special case. In this way, the municipality has not asked for the idea but he or she has considered the idea useful and the municipality can make use of it later. After the idea has been assessed, it will be sent to TMSC for future action.
- Planned idea: The municipality has specific problems and enquires about experts' ideas. In this way, it is generally assumed that the application of the offered ideas would be possible within a short time. So the process of evaluation is very controversial and takes more time. Similarly after the idea evaluation it will be sent to TMSC.

The first kind of idea is adhoc, so it can be concluded that most of the procedures in the idea bank have been assigned to the second alternative although framing methodology has been planned for both kinds of idea generation.

It is not possible to impulse experts by a rigid system of compensation (e.g. merely paying money), because they expect to receive a variety of equilibrates for sharing their ideas. The idea bank compensation system must be flexible enough to compensate the citizen valuable contribution by providing them with the best possible portfolio of prizes.

2) Framing Effect

Framing is one of the most famous controversial issues, which deviates from the rational decision theory (Tversky and Kahneman, 1986). Judgment and decision making are very sensitive to the way that decision outcomes are manipulated (Kahneman & Tversky, 1971; Tversky & Kahneman, 1981;) whether this manipulation, aims at challenging the willingness to risk, simply evaluating of an object or persuading a communication (see., Levin et al., 1998). Basically rational decisions follow the normative model of expected-utility theory (Baron, 2008). According to this model, decision outcomes should not violate the principle of description invariance (Kahneman and Tversky, 1984). Based on this principle the way that a decision scenario is manipulated in different states or situations should not change individual choices. But in framing manipulating of a decision problem is different, even contradictory choices would be made. Because it objectively emphasizes part of the problem's information that biases people's decision to a choice that does not follow a rational process, it rather follows subjective values. (Kahneman and Tversky, 1984).

Daniel Kahneman and Amos Tversky in 1979 proposed a descriptive theory of decision utility, which is called "prospect theory" (see Fig. 1). This theory illustrates the famous type of framing called Risky-choice framing, because it can challenge people's

judgment by risky vs. certain options. (Kahneman and Tversky, 1979; Tversky and Kahneman, 1981). It is the most widely used type of framing in researches (Levin et al., 1998; Huang and Wang, 2010). In this type, "individuals tend to prefer risk-averse alternative when the outcomes are framed in term of gains (e.g., saving lives, making money), but shift to preferring risk-seeking when the equivalent outcomes are framed in terms of losses (e.g., dying, losing money)" (Druckman, 2001, P.63). For instance in the most widely cited risky choice framing (i.e., Asian disease problem) 72% of the answers biased to the certain choice in positive format and 78% of answers biased to risky choice in negative format (see, Tversky and Kahneman, 1981).

Variations of Asian disease problem have been used in many researches (see Druckman, 2001; Huang and Wang, 2010). Therefore one of the objectives of current study is to verify risky choice framing by using Asian Disease format, while it contains idea bank's outcomes (Experiment 2), because if this verification occurs, it would strengthen the existence of some framing effects that are consider in the idea bank (like, loss aversion, status quo, and sunk cost).

Prospect theory contains one of the most robust human biases called "loss aversion" and is defined as the individual tendency to avoid losses in exchange for obtaining equal gains (Tversky and Kahneman, 1981; Inesi, 2010). This bias causes risk seeking behavior because from psychological point of view losses (e.g., losing 1000\$) seem more painful and tormentor than equal gains (e.g., gaining 1000\$) (Kahneman and Tversky, 1979; Tversky and Kahneman, 1981). The result of this dissatisfaction in risky framing, biases decision to more risky choices. It is necessary to say that in the idea bank contributing an idea equates paying cost, and Obtaining award/s or satisfying expectations is similar to the gain. Kessler, Ford and Bailey (1996) found that loss of a favorable object produces a negative value in prospect theory. This is retrieved from mental accounting studies.

Loss aversion has been identified to be related to the number of important biases in decision making, including sunk-cost effect and Status quo bias and Task Framing (soman, 2004).

Sunk cost occurs when a person pays the price of a service or good in advance or has a previous investment in something then opens a mental account for the service (Thaler, 1999; Soman, 2004). A person can simultaneously open different mental accounts for different services and if the sunk cost be greater the pressure of using the service increases, (Garland and Newport, 1991; Soman, 2004). The account will close when the person gains the same value by consuming the service (Keasey and Moon, 2000; Soman, 2004). Therefore an expert who contributes an idea might create a mental account and it will be closed when

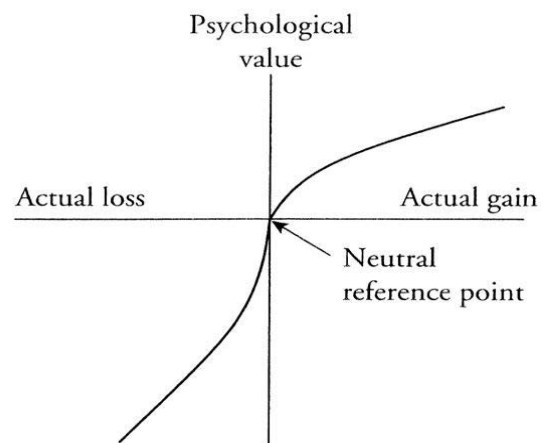


Fig.1 The value function of prospect theory. Reference: Soman, 2004

obtain an award (or gains) from the idea bank. Hence sunk cost is not just limited to monetary matters.

Status quo bias occurs when people have a willingness to remain at the status quo (Samuelson and Zeckhauser, 1988). The disutility of giving up current solution or situation looms greater than utility of gaining the new alternative solutions or situation (Thaler et al., 1991). Also people tend to feel more gain by the default condition. (Kahnman et al., 1991). Even by introducing a state as a default option to a person (i.e., the person has not experienced it before), it makes them more committed to the status quo to avoid loss feeling (Burmeister and Schade, 2007).

Positive features of an option motivate choosing it, in contrast negative attributes of an option discourage selecting it (Shafir, 1993; Levin et al., 1998) this is called "Task framing". According to hazard of these biases, In the idea bank which is suppose to collect the best ideas, there should not be any oriented means to direct the idea, deliberately or un-deliberately, to a special object; otherwise, the framing effect would occur. In manipulating of the problem only the necessary material and information should be provided, and also the experts should feel free in making decisions and contributing their ideas.

III. METHOD

1) *participants*

The participants were 202 adults (129 male and 73 female). Experts in our idea bank consist of different groups of dons, lawyers, engineers, managers, hygienists, treatment experts, consultants, and social experts. Ages ranged from 25 to 67, with a mean of 39.47 years (SD= 6.65). The population was experts living in Tehran and had contributed in the idea bank before.

2) *Research design and procedure*

The questionnaires were distributed among experts. The experiments 2 performed in two phases. In

the first phase half of the questions are asked and the rest were asked two months later. Since understanding the questions was necessary for the respondents, we performed an interview after each question. These interviews authenticated the reliability and stability of responds. Also one question appeared at the end of the experiments: "How clear were the questions in this questionnaire?" to check the clarity of the experiment tool (Hasseldine and Hite, 2003) responds recorded on a 1(very unclear) to 9 (very clear) scale. Another technique we applied for validation of the questionnaires was acquiring the opinions of five academic professors and applying the required modifications. The experiment 1asked the subjects to indicate their likeliness on a five point respond scale, on which to respond (1="very low", 5="very much"). And in the experiment 2, we asked subjects to respond double choice questions.

IV. RESULT

1) *Experiment 1- Sunk Cost Effects*

The objective of presenting this study is to investigate whether a person would be likely to continue contributing ideas after investing other ideas into the idea bank without success (i.e., loss). According to the system report, experts in idea bank can be categorized in to 3 parts. The first part is those experts whom have more than 60 % rate of idea acceptance and the second and third respectively have between 40%-60% and less than 40% .Therefore, we consider it in grouping our sample as control condition factor.

The Experiment's question:

Imagine you are expected to receive a concert ticket of your favorite singer in VIP part from idea bank as your requested award for your accepted ideas, but unfortunately your ideas are not accepted. How likely you are to continue contributing your ideas for the next round? (Note that this ticket could cost you \$50 if you wanted to buy it yourself)

RESULTS

The descriptive data are provided in Table 1.

Table .1 Descriptive data

Category	Mean	N	Std. Deviation
MORE THAN 60%	2.4062	32	1.26642
BETWEEN 40%-60%	3.2838	74	1.30877
LESS THAN 40%	3.7083	96	1.16001
Total	3.3465	202	1.30773

A T-test implied to examine the difference of means between categories in three states. The output is illustrated in Table 2.

The result of the statistics shows that the means are not equal in each test (P-Value<0.05). Especially there is significant different between the means in second test (P-value < 0.00).it can be inferred from the tables that those who has more failure rate of ideas are more likely to continue contributing ideas in future. In contrast the experts whom are the owner of winning rate are less concern about future contributions. So it might be concluded that the members' enthusiasm to avoid the loss impression in the idea bank (i.e., closure of a mental account containing loss of missing a reward), creates a stronger sunk cost.

2) *Experiment 2-Risky Choice framing*

Several studies have supported the validity, and reliability and internal consistency of the risk framing (e.g., Druckman, 2001). This experiment has been retrieved from Asian disease problem by considering the idea bank outcomes in order to find out to what extent framing effects can bias members' judgments and decision making. We had to implement questionnaire in two stages with one month lag. Otherwise the subject may understand the manipulation trick that had been used and in this case the results of this experiment would not be reliable.

The expressed questions in this experiment are as follows:

Imagine that your idea is accepted by the municipality and your expected awards are 6 subjects but in the very same time the municipality is dealing with some problems and this causes some limitations for the municipality. Therefore it will not be able to provide you the whole 6 subjects, rather you are provided with two alternative programs to compensate your efforts, Assume that the exact scientific estimation of the program's consequences are as follows:

Question 1:

-If program A is used, you can gain 2 of your expected awards for sure.

-If program B is used, there is a one-third probability that you will obtain the whole 6 awards and a two-third probability that no awards will be acquired.

Question 2:

- If program C is used, 4 of your expected awards will lose.

- If program B is used, there is a one-third probability that none of your expected award will lose and a two-thirds probability that you will lose the whole 6 awards from municipality.

Table2. Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
More than 60% × Between 40%-60%	.082	.77	-3.20	104	.002	-0.87	0.27	-1.42	-0.33
More than 60% × Less than 40%	1.21	0.27	-5.37	126	0.00	-1.30	0.24	-1.78	-0.82
Between 40%-60% × Less than 40%	3.34	0.07	-2.23	168	0.02	-0.42	0.18	-0.79	-0.04

*Equal variances assumed

Obviously in question 1 program A contains positive and certain information and program B offers positive and risky information, while in the second question, program C includes negative and certain information and program D provides a negative and risky outcome.

In Table 3 the frequency of responds to each one of the programs are shown. On one hand although programs A and B in question 1 are identical with programs C and D in question 2 are equal from the consequence point of view, there is a meaningful difference around %39 (65-26 & 74-35)between them. On the other hand a Nonparametric chi-squared test, $\chi^2(1, N=202) = 19.03, P < .05$ in first question and $\chi^2(1, N=202) = 64.34, P < .05$ in second question shows that in %95 confidence level, the proportion of the responds are not the same. This result supports the prospect theory principals in the idea bank, consequently when the decision outcomes are presented in positive way, the experts would be risk averse. On contrast if those outcomes are offered in negative way they would be risk taking.

Table3. Frequency Distribution in Experiment 2

Chi-Square(P-Value)	Percent(N)	Options	Questions
19.03 (0.00)	65%(132)	Program A	Question 1
	35%(70)	Program B	
64.34 (0.00)	26%(44)	Program C	Question 2
	74%(158)	Program D	

In table 4 the cross tabulation instrument has been applied to better explanation of the relationship between two questions. The interesting point that is indicated in this table is that 28 (%14) out of 202 experts who had chosen program A (positive-certain), selected program C (negative-certain) in second question and also only 45 experts (%22) who had chosen program B in question 1, selected program D (negative-risky) in second question. This result explicitly indicates the inconsistency in selection, which is a consequence of framing.

Table4. Experiment 1_1 × Experiment 1_2 Cross tabulation

		Experiment 1_2		Total
		Negative Certain	Negative Risky	
Experiment 1-1	Positive certain	14%(28)	51%(104)	65%(132)
	Positive Risky	12%(25)	22%(45)	35%(70)
Total		26%(53)	74%(149)	100%(202)

V. DISCUSSION

The result of sunk cost in this research is of great value especially because it may open a path to apply proved mental accounting's theories and principles in the idea bank or other similar information systems that is the theatrical contribution of this study. For instance we can mention "hedonic effect" principle (Thaler, 1985, 1999) which is retrieved from mental accounting literature. The implications of this principle have been introduced in researches (for further study see Thaler, 1985, Soman, 2004) especially in marketing. To increase the subjective value of individuals in a transaction:

1. Integrated Losses
2. Segregate Gains
3. Segregate small Gains from big Losses (well known as "Silver Lining" Principle)

We can exemplify the implication of each mentioned principle above to satiate expert more in the idea bank. According to the first principle when the idea bank has received some ideas from an expert it is better to inform the rejected ideas all together at the time of notification of the result rather than notify each (failed idea) one by one. For the second principle if an expert expects to receive a portfolio of wards, it is more effective to provide his/her awards separately for example assigning 5 awards in 7 days rather than whole in one day. And finally imagine that the idea bank has been faced with financial problem in a period of time which is not possible to compensate the expert's for their contribution (especially when the promised award/s

costs a lot) by whole award/s the third principle suggest that never postpone the awards for the future in this exceptional case rather it is very convenient to inform them friendly the current circumstance of the idea bank and provide them their award as much as possible this help to lessen the perception of loss in their mental account otherwise the inclusion of the loss in their mental account hamper future cooperation with the idea bank.

VI. CONCLUSION

People select opposite solutions for their problem in a same situation because of the framing effects. This paper discusses the outcomes of framing effects on judgment and decision making in the idea bank with a real experience from the idea bank. In the first Experiment we discussed that generating ideas in the idea bank similar to monetary transactions creates a mental account for the expert therefore it is suggested that the theories and principles which are in domain of mental accounting could be applied in idea bank or other analogous management information systems the "hedonic effect" considered as an example here. In the second experiment the risky choice framing applied in order to show how framing effects can cause contradiction in experts' judgment and decision making. We insist that awareness about hazard and opportunity that framing problems cause is as necessary as budgeting and planning for survival of the idea bank. Finally the implication of framing effects and mental accounting for increasing the level of individual participation would be suggested for the future studies. In this study a limited number of framing effects have been investigated. By taking the results of the study into consideration, it is evident that some of the primary theoretical constructs of framing area and mental accounting could be employed in the idea bank; therefore it is possible to be able also to investigate other constructs of this area in the idea bank and similar information systems.

VII. ACKNOWLEDGEMENT

We thank Joun Gourvill , Mary Steffel and Fatemeh Saghafi for many helpful comments and Ali Davari for statistical consultations.

REFERENCES RÉFÉRENCES REFERENCIAS

- 1- Adamson, D. (2010), Community Empowerment Identifying the Barriers to "purposeful" Citizen Participation. *International Journal of Sociology and Social Policy*, 30, 114-126
- 2- Baron, R. A., & Shane, S. A. (2008). *Entrepreneurship: A Process Perspective*, (2nd Ed.). Thomson South-Western, Mason, OH 45040 USA.
- 3- Baron, J. (2008). *Thinking and Deciding* (4th edition), Cambridge, University press, UK.
- 4- Berner, L, Bogoyavlenskaya, N, L, Ifiushin, S. A, Kitaitseva, E, Kovalev, A, and Rochtchin, A. (1995). *Integrated Approach to Urban Facilities Maintenance and Alarm Management*, Computer, Environment and Urban Systems, 19, 201-206
- 5- Burmeister, K., Schade, C., (2007). Are entrepreneurs' decisions more biased? An experimental investigation of the susceptibility to status quo bias. *Journal of Business Venturing* 22, 340–362
- 6- Druckman, J. N. (2001). Using Credible Advice to Overcome Framing Effects. *Journal of Law and Economics & Organization*, 17, 62-82
- 7- Druckman, J. N., & Nelson, K. R. (2003). Framing and Deliberation: How Citizens' Conversations Limit Elite Influence, 47, 729-745
- 8- Ena Inesi, M. (2010). Power and loss aversion. *Organizational Behavior and Human Decision Processes*, 112, 58–69
- 9- Garland, H, & Newport, S. (1991). Effects of Absolute and Relative Sunk Costs on the Decision to Persist with a Course of Action. *Organizational Behavior and Human Decision Processes*, 48, 55-69
- 10- Gourville, J. T. (1998). Pennies-a-Day: The Effect of Temporal Reframing on Transaction Evaluation. *Journal of Consumer Research*, 24, 395-403
- 11- Hasseldine, J., & Hite, P. A. (2003). Framing, gender and tax compliance. *Journal of Psychology*, 24, 517-533
- 12- Haas, P. M., & Haas, E. B. (1995). Learning to Learn: Improving International Governance, *Global Governance*, 1, 255–84
- 13- Huang, Y, Wang, L., (2010). Sex differences in framing effects across task domain, Personality and Individual Differences 48, 649–653.
- 14- Kahneman, D., Knetsch, J.L., Thaler, R.H. (1991). Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias, *the Journal of Economic Perspectives*, 5, 193-206
- 15- Kahneman, D. and Tversky, A. (1984). Choices, values, and frames', *The American Psychologist*, 39, 341-350.
- 16- Kahneman, D., & Tversky, A. (1979). Prospect Theory: an Analysis of Decision under Risk. *Econometrica*, 47, 263-291
- 17- Keasey, K., & Moon, P. (2000). Sunk cost effects: a test of the importance of context. *Economics Letters*, 66, 55–58.
- 18- Kessler, E. H, Ford, C. M., & Bailey, J. R. (1996). Object valence as a moderator of the framing

- effect on risk preference. *Journal of Economic Behavior & Organization*, 30, 241-256
- 19- Knetsch, J. L. (1989). The Endowment Effect and Evidence of Nonreversible Indifference Curves. *The American Economic Review*, 79, 1277-1284
- 20- Levin, I. P, Schnittjer, S. K, and Thee, S. L. (1988). Information Framing Effects in Social and Personal Decisions, *Journal of Experimental Social Psychology*, 24, 520-529.
- 21- Levin, I. P, Schneider, S. I, Gaeth, C. J. (1998). All Frames are not Created Equal: a Typology and Critical Analysis of Framing Effects, *Organization Behavior and Decision Process*, 76, 149-188
- 22- Mutz, D. C. (2002). Cross-cutting Social Networks, *American Political Science Review*, 96, 111–26.
- 23- Rotmans, J, Asselt, M. V, and Vellinga, P. (2000). An integrated planning tool for sustainable cities, *Environmental Impact Assessment Review*, 20, 265-276
- 24- Rotmans J. (1998) Methods for integrated assessment: the challenges and opportunities ahead, *Environ Model Assess*, 3,155–181.
- 25- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, 1, 7-59.
- 26- Shafir, E. (1993). Choosing versus rejecting: Why some options are both better and worse than other *Memory and Cognition*, 21, 546-556.
- 27- Soman, D. (2004). Framing, Loss Aversion and Mental Accounting. In N. Harvey & D. oehler (Eds.), *Handbook of Judgment and Decision Making Research* (pp. 379-398). Blacwell, London, England.
- 28- Soman, D, Gourville, J. T. (2001). Transaction Decoupling: How Price Bundling Affects the Decision to Consume, *Journal of Marketing Research*, 38, 30-44
- 29- Thaler, R. (1985), *Mental Accounting and Consumer Choice*, *Marketing Science*, 4, 199-214
- 30- Thaler, R. H. (1999) *Mental Accounting Matters*. *Journal of Behavioral Decision Making*, 12, 183-206
- 31- Tversky, A., & kahneman, D. (1986). Judgment under uncertainty: Heuristics and biases. In H. R. Ares & R. Hammond (Eds.), *Judgment and decision making: An interdisciplinary reader* (pp. 38–55). New York: Cambridge University Press.
- 32- Tversky, A., and kahneman, D. (1971). The belief in the law of small numbers, *Psychological Bulletin* 76:105-110.
- 33- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-458.
- 34- Weiss, T. G, & Carayannis, T. (2001). Whither United Nations Economic and Social Ideas?, *Global Social Policy*, 1, 25-47



This page is intentionally left blank