DO PEOPLE ALWAYS RESPOND TO INCENTIVES? EXPERIENCE IN DATA GATHERING THROUGH FACE TO FACE INTERVIEWS

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ABSTRACT

Incentives of different forms and at different stages are used for motivating people to participate in human subject research. Although it is accepted that incentives, in general, play a positive role in increasing the participation rate, there are exceptions. Incentives may contaminate the quality of research findings or may even reduce response rate in some circumstances. If the research project is purely for public goods, the researcher does not have any intention of personal gain, and that message is clearly conveyed to the prospective respondents, a material incentive may not be needed. Under such a situation, peoples' altruistic behavior takes precedence over psychological egoism.

INTRODUCTION

A simple and common principle used in economics is that people respond to incentives. In general the applicability of such principle is widespread and almost everyone will agree with it. Since the invention of money, people have been using money to offer incentives for receiving goods and services. Non-monetary incentives are also in existence although less prevalent. The practice of offering incentives to motivate people to increase response rates in survey research have been used since 1930s (Shuttleworth, 1931). Since then, numerous experiments have been conducted to find appropriate method, amount and time of incentives to increase response rates primarily through mail surveys (Cannell and Henson, 1974; Hansen, 1980; Shaw et al., 2001; Koloski et al., 2001; Trussel and Lavrakas, 2004; Eyerman et al., 2005; Kulka et al., 2005; Wright et al., 2005; Kanaan et al., 2010; James et al., 2011). Recently, with the advent of internet survey tools, such experiments have also been done for web based surveys (Cobanoglu and Cobanoglu, 2003; Deutskens et al., 2004; Goritz, 2006; Sánchez-Fernández et al, 2010). However, studies on increasing the motivation to participate in a face-to-face interview are relatively scanty, especially on committed lottery payment. The effect of prepaid monetary and nonmonetary incentives in face-to-face interviews on response rates and response quality were studied by Willimack et al (1995) and Davern et al (2003). This paper makes an effort to shed some light on the experience gathered on the system of committed lottery payment in a face-to-face interview.

There has been plenty of research on whether incentives really work, what would be the most effective form of incentive, whether incentive payments contaminate or decontaminate research findings, whether the incentive should be paid before or after the data gathering process, whether incentive payments to motivate research participants are ethical, and the like. These and similar questions are primarily addressed for mail surveys. By and large the general consensus is that incentive payments increase response rates as long as the incentives are prepaid. The relationship, however, is not necessarily linear and the conclusion is not unanimous. Not all forms of incentive payments are equally effective – some are more, some are less and some are ineffective. The gender, ethnic group, demographic, profession and income level of recipients are also important factors. In this article, we plan to share the experience we gathered while conducting a face-to-face interview on consumers demand for organic foods.

Recruiting research participants is a challenging job for conducting human subject research. Incentives are often used as catalysts to increase the number of participants. Although research results are mixed, the average tendency is definitely more toward a positive direction. Incentives, however, impose a cost on to the researchers. Zangeneh et al (2008) observed that researchers with sufficient funds are more likely to use cash incentives, whereas those with insufficient funding either go with the lottery option or to the grade incentive option if the subjects are students (Szelenyi et al, 2005; Padilla-Walker et al, 2005). Some universities use student pool as research subjects and those who participate receive incentive through marks (Miller, 1981). Padilla-Walker et al (2005) observed that the students participating as research subjects for extra credit exhibited higher academic performance although the incentive of extra credit failed to draw attention to majority of students. The findings are of limited use as the extra credit may have partly contributed to the higher academic performance as the performance is measured through grades. It is also possible that the students participated in the research projects came from the group of higher academic standard or students of higher academic standards became more motivated by the mark incentive.

The underlying assumption for monetary incentive is to compensate for the time spent and the effort made on providing the information. Davern et al (2003), following Dillman (1991), call it as social exchange theory meaning that the researchers willing to receive greater participation should offer incentive (something of value) for the respondent's participation establishing an explicit exchange relationship. Such incentives could be monetary payments, gifts, lotteries or reports of the research project, which will induce the respondents to participate. Read (2005) discussed three ways that incentives may work. These are 'cognitive exertion' – an increased amount of thinking putting into the response, 'motivational focus' – a change in the goal to respond, and 'emotional triggers' – an increased inclination toward providing response.

From a research perspective, obtaining information from a respondent is receiving a service from him/her. Although in many times, the information itself may not have a high opportunity cost, the time and effort the respondent has to put into providing such information certainly have an opportunity cost. In that, offering some form of compensation (or inducement or incentive) to a respondent has become common.

The practice of providing incentive is not without controversy. Particularly, if the gathering of information is for a greater good to the society and the respondent is already intrinsically motivated. Several studies report that an intrinsically motivated respondent find the incentive demeaning and results counterproductive outcome – a crowding out of the response rate (Frey and Oberholzer-Gee, 1997; Grady, 2001). This is due to the altruistic nature of human being – a helping behavior motivated by selfless concerns or for the benefit of the community but not the individual. Is an incentive going to stimulate such behavior or crowd out such behavior is an important question needs to be answered. In the following sections, we'll explain the forms of

incentive payment; discuss the altruistic and the psychological egoistic outcome of incentives, and what we experience through our research process.

FORMS OF INCENTIVE PAYMENT

Incentive payments used to motivate respondents have been of many forms. Cash incentives have been the most common. Other forms of incentives, such as, coupons to apply to future purchases have been used by businesses, additional grade incentives have been used by professors for student respondents, small gifts for household uses or children toys by marketing companies, promised additional treatments by health researchers, sample medications by pharmaceutical companies, etc. The incentives can be up front or pre-paid and promised or post-paid. Existing literature is overwhelmingly inclined toward the prepaid incentives in terms of increasing response rate (Peck and Dresch, 1981; Willimack et al, 1995; Davern et al, 2003; Hager et al, 2003; Szelenyi et al, 2005; Kanaan et al, 2010; James et al, 2011). This makes sense even in terms of simple inter-temporal preference as all of us prefer a one dollar today than one dollar a year from now. There is also another dimension of choosing an option based on certainty equivalent. The inter-temporal preference is based on the assumption of complete certainty. However, a respondent can never be certain on the promised payment of the research company of individual as the researcher is often obscure or unfamiliar to the respondent. It should be noted that the situation could be different in a face-to-face interview.

The prepaid cash payment is relatively less complicated as the interviewer has to decide on the amount only. Often as the prepaid amount increases, response rate increases with a decreasing rate (Willimack et al, 1995; Warriner et al., 1996; Davern et al, 2003) – an explicit example of diminishing marginal utility. It is more complicated to decide the case of a post-payment or promised payment. One concern is the post-payment has to be more than the prepayment amount which increases cost to the researcher. In many times, a lottery has been used to avoid some of the respondents and so as to reduce cost (Zangeneh et al., 2008). Some researchers have tried an innovative approach to gather some of the altruistic nature and to minimize crowing out effect by using the contribution to a charity of the respondents' preference. This motivates better to an altruistic person and crowds out more on the part of the egoistic respondent. The following chart shows some common possible forms of incentive payments.

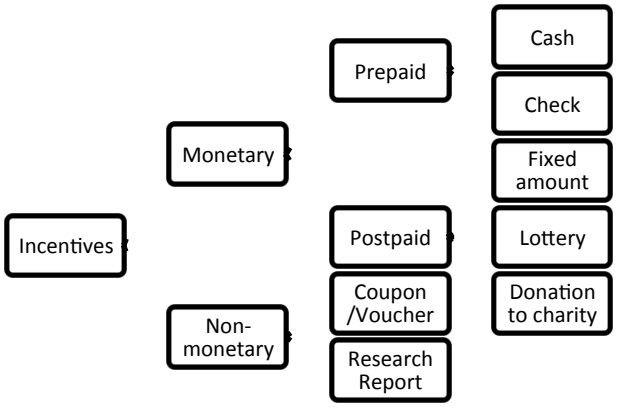

Figure: Schematic diagram of some common forms of survey incentives

THREE PRINCIPAL CONCERNS: EQUITY, ETHICS AND RESEARCH

Incentives provided to the respondents do not guarantee equity for several reasons. The amount monetary payment paid to the respondent caries different values to different respondents based on their income level and need of money at that time. A $10 bill is worth more to an

individual having difficulty in satisfying basic needs than to an affluent individual. The level of motivation would likely be quite different. Such inequity is more when the incentive is in non-cash or non-monetary. In-kind incentives, such as gifts of household useful goods, toys or others, can never guarantee the same usefulness to all respondents and as such cannot be equitable. Heyman and Ariely (2004) and Kube et al (2008) found evidence that different types of incentives with same nominal value yield different response.

Is incentive payment ethical? The objective of an incentive payment is to increase motivation to participate in the information gathering process. This can sometimes motivate an individual who is not a knowledgeable on the subject but would like to participate simply to obtain incentive. Incentives may also motivate individuals to participate for personal gains rather than for helping the researcher (McNeil, 1977). Since incentive payments involve costs, some researchers cannot afford and resort to lottery payment to attract participants. This method of incentive is provided to some randomly selected participants to win the lottery. This is considered unethical by some participants and may crowd out. Lottery has always been the subject of question. Those who oppose lottery voice their concern as this may lead to addiction and may lead to a greater risk than the benefit it can provide. Still this is a common practice of fund raising in many communities to support public goods. Supporters of lottery find this is an attractive, fun and exciting social activity. However, those who participate in lottery for fun and excitement are more likely to become addicted. Whatever the case maybe, there is unequal distribution of incentives. Although in a fair lottery system, each and every participant has equal opportunity to win, only a few actually do.

Incentive to motivate may also lead individuals not to express their opinion exactly the way they would have should there were no incentive. Under such a situation, individuals may even become slightly dishonest and provide aberrant information (Mazar et al, 2008). Although the responsibility goes to the individual responding, the researcher becomes responsible to inducing this opportunity. Moreover, the research results reported are erratic.

From a research perspective incentive may create bias although there are arguments against that. Ritter et al (2005) pointed out that financial incentive may made the sample skewed toward less educated and lower income individuals and as such distorting the representativeness of the population. Hansen (1980) observed that the respondents with no incentive returned survey forms with more complete and quality information relative to their counterpart with receiving incentives, and concluded that participants motivated purely for financial reasons would provide erratic and inaccurate information resulting biased outcome. Cannell and Henson (1974) in an earlier study suggest that an incentive may make participants likely to attempt to provide a response that would please the researcher rather than a providing a valid or true answer.

ALTRUISM VERSUS PSYCHOLOGICAL EGOISM: A POTENTIAL CONFLICT

What motivates an individual to become a subject for social-economic research is an age old question. Although the question seems simple, the answer is not. Some people are intrinsically motivated by the objective of the research project and others require external motivating catalyst. Some decide not to participate altogether irrespective of any incentive. Our objective in this paper is to focus on what factors motivate to take part for those actually do. Benabou and Tirol (2006) develops a theory of behavior for different level of motivation which combines an individual's 'degree of altruism and greed.' They divided the total motivational effect into three different components – intrinsic, extrinsic and reputational. Analyzing on individual choices and basing on the context, they came up with four sets of results. The first is 'Reward and Punishment' which explains that in presence of a purely altruistic choice, an external incentive degrades the reputational value of good work and results a crowing out effect. The second is 'Publicity, Praise and Shame' which explains a social contribution generates prominence and encourages to do more. The third is 'Social and Personal Norm' which explains

that people chose their action based on what others do. This can be strategic compliments or substitutes. The fourth is 'Welfare and Compensation', which explains complementarity or substitutability of non-quantifiable incentives.

Although these explanations provide a powerful analysis of human behavior related to motivation, none of these models provides a practical solution or a unique answer to the question posed above. Individual's choices are usually based on one or a combination of more than motivating factors. In this section, we'll try to explore potential conflicts between altruistic motivational factors and psychological egoism. Such conflicts arise between individuals as individuals can be categorized as altruistic versus egoistic although the division is not black and white. Such conflicts may also arise within an individual's mind exert that in behavior from case to the other. At times the individual is altruistic and at other times the individual is egoistic.

In many research studies, respondents participate in an interview process for their altruistic nature. In their mind, they are contributing to the greater good to the society by providing information to the researchers. Such people are intrinsically motivated for participating in the project concern and any effort for further motivation especially through incentive will likely backfire (Frey and Jegen, 2001; Benabou and Tirol, 2006). In many cases, this is true as the research studies guide policy prescriptions for the betterment of the society. Respondents are intrinsically motivated for doing the task of participating. People participate in the voting process and census process as their civic duty. Although they spend their time, effort and energy, they hardly expect any compensation for their participation. These people will find compensation or incentive offensive. This will simply undermine their altruistic nature. They will become suspicious on the motives of data gathering and may likely refrain from providing information.

People's response to incentives is an important and fundamental economic principle and in general expresses such behavior as psychological egoism. People, in general, are guided by their egoism or their self-interest. Any action they perform, they expect a return. Even in charitable work, people expect a return of respect, dignity and fame. People become involved in social work to become known to the society. They would like to let other people know that they work for others and eventually when they would be running for the public office, they expect people to vote for them. These are all examples of egoistic behavior of people. This is natural and in existence all around. Any incentive for motivating to participate in the information gathering process will be useful for this people, at least to increase the response rate. Whether the research studies will benefit or not is another story. On the other hand not all people expect a return for their action to good for others. There are people, who give charities anonymously and do not expect any return. They are the true altruists.

The dilemma a researcher faces while planning an interview process is how to ascertain the behavior of the subjects. One should also be taking into consideration of the research project, the location, demographics, income level and other characteristics of possible interview subjects. Talukder (2011), after reviewing the ethical aspects of incentives processes on health care research, suggests that inducements are acceptable as long as they are helpful to increase participation, generate benefits to both the subjects and the researcher, do not change subjects' behavior, closer to compensation for the subjects' time and effort, and are compatible with welfare of the society.

OUR STUDY

Our study was a part of an interview process to gather information from retail grocery shoppers regarding their perceived demand for organic foods. The questionnaire was only three-page long and the interview was conducted face-to-face. The sample was selected randomly by visiting retail grocery stores. Five conventional grocery stores – Sobeys, Save-On Foods, Superstores, Safeway and Wal-Mart, and a specialty grocery store focusing on local and fresh

foods – Sunterra Market were approached for allowing us to interview their customers. After repeated request and with sufficient assurance that the findings will only be used for research purposes and will not be disclosed to anyone, Safeway and Wal-Mart still refused to cooperate. Individual shoppers were approached and the information on the questionnaire and the purpose of the data collection were provided. The appeal used in the cover letter (presented in the textbox below) was mostly of altruistic type. The cover letter contains a clear statement on the objectives

Textbox: Cover Letter on the Questionnaire

Dear Customer:

You have been randomly selected to participate in the research project entitled "**An Analysis of Demand for Organic Foods in Alberta**" jointly conducted by the researchers of Grant MacEwan University and the University of Alberta.

I would like to invite you to participate in this research project. The principal objectives of this research project are to identify the factors contributing to the demand for organic foods, to find out the actual retail price differential between organic and conventional foods, and to determine consumer's willingness to pay (WTP) premium prices for organic foods.

Your participation will make a significant contribution to this research project as the information you will provide will determine the outcome of this study. Please provide your honest opinion and the best estimate you can come up with.

The information you provide will remain confidential and anonymous. No personal identifiable question will be asked. No facts and figures with any possibility of identification of respondent will be disclosed to anyone. The Research Assistant has signed a confidentiality agreement with the MacEwan Research Office that (s)he will not disclose any information regarding this project to anyone.

Your participation in this project is completely voluntary and you may choose not to participate at any stage of this survey procedure.

Since this research project involves human subjects, the project has received approval from the Research Ethics Board of the Grant MacEwan University. If you have any question regarding the approval of the Board, you may contact the Chair, Dr. *Rodney Schmaltz, either by email to:* SchmaltzR0@macewan.ca or by calling to: *780-633-3674.*

If you have any question regarding the survey process or the research question or procedure, you are welcome to contact me by any means – telephone, email or regular mail. This information is provided in the back side of the identification card of the Research Assistant and is also available on a separate card should you like to have one for future reference.

Let me take this opportunity to express my heartfelt thanks and appreciations for your contribution to this research project.

Sincerely,

Signature
Shahidul Islam
Phone: 780-497-4791
Email: islams@macewan.ca

of the project. The respondents were also reminded that their participation in this interview process will make a significant contribution to this research project. They were also assured that they will remain anonymous as no personal information is collected and the information collected remains confidential. The project has received approval from Grant MacEwan University Research Ethics Board and the contact information of the Chair is included in the cover letter.

The interviewer carries an identity card containing the communicating information of the researcher. The respondents were also told that their participation is completely voluntary and can withdraw at any time they feel necessary. At the very end of the interview process, they were thanked for their participation. As an incentive, respondents were asked to provide their names and telephone numbers on a card to enter into a draw for a dinner for two (a $60.00 value) in a local area restaurant. The odds of winning are one in one hundred. Some respondents were told about the incentive and asked to fill out the card at the beginning. Others were told about the incentive once the interview is completed and asked them to fill out the card.

It was clearly observed that individuals actually had a negative response to the offer of incentive to take part in our study. To elaborate; when the offer to have one's name placed in a draw to win a gift certificate was given to potential participants prior to their agreement to participate, they often reacted in a very defensive manner, becoming suspicious and flighty. Also, in some cases they asked if we were selling something or if they would be put on a mailing list. These defensive responses resulted in a low ratio of volunteers to individuals approached. Inversely, when we decided not to offer the opportunity to enter into a draw until after completion of the survey as a show of thanks, and gave no initial incentive to garner participation, peoples' responses were quite favorable. It seems that people were more than happy to give their time and patience for the altruistic rewards that exist in assisting a university in its research. A few participants, however, still reacted negatively to the draw offer even after finishing the survey and in only one case was a volunteer's participation dependent on the existence of incentive.

CONCLUSION

As explained above, people choose to participate as research subjects for a variety of reasons. Such reasons not only depend on the individual behavior, but also on how the researcher approaches the participant and what is the actual objective of the research project. We find that if the research is purely for the public good and the objectives of that are clearly conveyed to the respondents, they are more likely to come forward as volunteers for altruistic reasons. Grady (2001) clearly stated, "*Research participants volunteer and sacrifice their time and effort to generate knowledge that is helpful to others and society, often with little or uncertain benefits for themselves*." She, however, favored paying a compensation for time and effort given by the subjects. Since our questionnaire was quite short and a personal touch was present due to face-to-face interview, the importance of incentive payment was minor. The small incentive offered to them as a token of appreciation was useful as long as that was mentioned upon completion of the survey. This is a clear indication that if the respondents' opportunity cost of time and effort was minimal and the causes of research are purely public goods, respondents would more likely to come forward as volunteer to participate as research subjects.

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