

THE CONCEPT OF THE E-PORTAL AS A SPECIALIZED TOOL FOR CONDUCTING MARKETING EXPERIMENTAL RESEARCH ON THE INTERNET

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ABSTRACT

The objective of the article is to present the specialized tool –the e-Portal which is designed to improve the experimental research process on the Internet. The objects of studies are barriers which are faced by the research entities in the internet environment and efforts to restrain them by creating a universal research platform based on the gratification of participants. By introducing the possibility of interactions between investigators and research participants and by agreeing to reduce the risk of hoax, it is possible to reduce the reluctance of Internet users to take part in research, to extend the acceptable period of research duration and to increase the proportionality and veracity of a target sample.

Keywords: marketing research, experimental research, social media, interactive research tools, innovations in marketing research.

INTRODUCTION

The development of Internet has resulted in getting consumers active in the virtual world which has become a burgeoning environment for purchasing processes. The Internet is a specific form of market where buyers and sellers can transact and conduct business activities without limitations on accessibility and spatial distance. For shoppers the Internet has become a tool to improve the possibilities of obtaining information about the offers of various companies, a platform to exchange views and a place where interactions with other consumers are possible. For sellers this is primarily a promotional tool which allows access to geographically inaccessible customers and increase brand awareness and sales of the product. This versatility has become a motivating factor for expanding traditional marketing research on so-called networking tools. Using the power of the Internet, quantitative and qualitative research on consumers and sellers is conducted. Behaviour and attitudes of a specific audience can be examined, based on which it is possible to adjust marketing strategy towards the requirements of a particular group of consumers. The Internet is also a place for conducting experimental research that by creating a virtual market with limited range, a proportional selection of consumer segments aims at mapping real customer behaviour, recognizing and properly interpreting it (Babbie, 2013).

Experimental studies provide tracking consumer reactions to the product, its environment and competitive offers in theoretically the most realistic way and they are therefore seen as most reliable online research techniques (McBride, 2013).

BARRIERS TO CONDUCTING EXPERIMENTAL RESEARCH ON THE INTERNET

Research conducted via the Internet is subject to numerous potential limitations and pitfalls that can consequently lead to low credibility of the study. **Anonymity of users** can be regarded as basic problem. The selection of the research sample on the basis of desirable characteristics is burdened with a high degree of potential, or inadvertent mistakes due to the inability to verify the data declared by the users of web portals. One possible place for collecting samples for research conducted over the Internet can be social media where users are theoretically more prone to make public the data about place of residence, age and education than in other websites. However, this is not a universal phenomenon. Users have the ability to hide the details of their profiles from strangers, some of them give false information allowing us to argue that research with the use of social media also entails a risk of inauthenticity. Another barrier to online research is the reluctance of Internet users to take part in it due to the lack of time. The volume of research with the use of Internet is growing and therefore also the amount of tests proposed to one Internet user per annum is a statistically upward trend. This results in frequent rejection of proposals for participation in subsequent studies (NPR, 2013). This fact, in turn, connects to the necessity of **reducing the length of the web test**. Users are more prone to participate in short surveys than in several days long research experiments (Rand, 2014). While the objective of the surveys is to obtain maximum coverage, the total number of completed questionnaires and statistical analysis of the results, experimental research, however, requires the involvement of participants in the process.

In cases of cancellation of participation in the experimental research conducted in the Internet, finding the same user and persuading him to complete the study involves more logistical problems than in the real world. To involve people in experimental study financial rewards are used, however, such actions in the Internet environment is problematic due to the low tendency of users to report the actual data and a low level of confidence about further data transmission. Also considered to be problematic is **the disproportionality of given groups** in the real and virtual worlds. The research conducted by Pew Research Center shows that in the structure of Internet users, there is evidence of overrepresentation of age group 18-29 compared to the 50-64 and 65+ groups. Upon the studies provided by this research center in 2013, 89% of Americans aged 18-29 were using the Internet. In the age group of 65+, this number was only 59% (PewInternet: Whos-online, 2013). The use of social media among these groups shows even greater disparities. 89% of internet browsers aged 18-29 use such media. In the age group of 65+ this was only 43% (PewInternet: Social-Networking, 2013). It is evident, therefore, that in case of wanting to conduct Internet research on older people, recruiting them seems to be technically more difficult than a group of young users. It is a serious barrier to attracting a target research sample. Disproportionality of the different groups of Internet users in relation to the real world can be seen also in terms

of other indicators, such as place of residence, education or earnings. In 2013, 97% of people with higher education were Internet users. In the groups of lower educational status only 56% were using this tool. In the case of earnings there is a predominance of people with earnings above 75,000\$ per year (97% are Internet users) compared to these with earning less than 30,000\$ per year (75% of them used the Internet) (PewInternet: Whos-online, 2013). Worth noting is that the studies were conducted on the Americans. It is suspected that in the case of Polish research these results would have presented even greater disparities. It is therefore evident that the Internet does not reflect the real proportion of the world population so conducting any experimental research where the goal is mapping the real market, requires additional involvement in the selection of the research sample. Studies conducted by Harris Interactive clearly shows that Internet users have a high **distrust to other browsers and Internet activities** (such attitude indicated 98% of the sample of 1,900 people). Specific factors affecting this phenomenon were the ability to infect a computer with virus (63%), loss of the money (51%), the possibility of embezzlement (51%), loss of credibility (36%) (Mashable: American distrust of the Internet, 2013). Undoubtedly, such attitudes affect Internet users to reduce their willingness to participate in research conducted over the Internet. In particular, experimental research which requires the commitment and detailed data from the participants, are associated with a low level of confidence from potential respondents.

THE CONCEPT AND ASSUMPTIONS ABOUT THE E-PORTAL

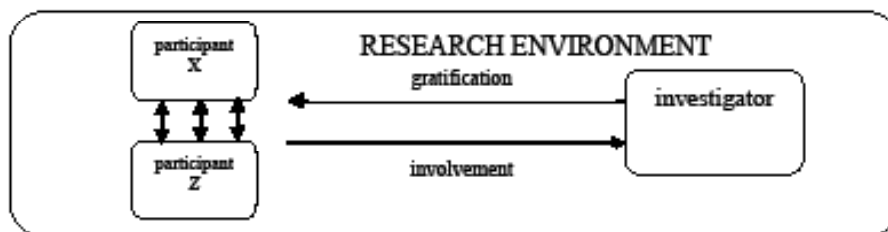
An attempt to reduce the above presented research barriers is to construct such a tool which could reduce the anonymity and increase the confidence towards such tool in perception of the Internet users. It is also necessary to reduce the level of reluctance to participate in the study and to increase the involvement and inclination to take part in longer experimental research by securing proper gratification. It is also crucial to increase the proportionality of particular groups of respondents what would allow for the reproduction of the real market in the virtual world. The proposition of such a tool is a research portal which combines the features of a database and social media. Its basic premise is the existence of a legally protected access to the registered users who are the potential participants in the experimental study. The actors involved in the functioning of the e-Portal are respondents, investigators, administrators and external companies. The purpose of the analysis is primarily to estimate the validity of functioning of such a tool and to gauge the possibility of its use by the respondents and investigators on the basis of mutual benefits. The e-Portal is assumed to be a tool in a form of website which would collect the largest possible group of Internet users. From among them it will be possible to select the desired participants for the particular experimental research. Depending on the intention of investigators it will be permitted to divide participants into experimental groups and control groups. Also provided is the potentiality of interactions between participants, participants and investigators or even the remaining unaware by participants about the number of other people taking part in the research (Luck, & Shogrun, 2007). The concept of the e-Portal is in the stage of planning and investigating its

market usefulness and commercial potential. Attempts to create the proposed tool are the result of a wish to limit previously experienced challenges in experimental research faced by the author and co-operating teams.

FUNCTIONS OF THE E-PORTAL

Basically, the goal of the e-Portal is based on four basic functions. The first of these is the **research function**. Designed as a specialized tool, the e-Portal is used for conducting experimental research. Its functioning is aimed at reproducing the research environment in the closest way to the reality, particularly in terms of the characteristics of users. To ensure broad access to the potential respondents, the e-Portal should be based on the **principle of gratification**. Participation in the study should be therefore paid in cash or in any other form proposed by the investigator (e.g. by access to paid online information, products offered by ordering the tests, etc.). The principle of gratification is a key in the functioning of a research portal which guarantees the stability of sample and whole research. In principle, it is strictly related to another function of this tool - **involvement of respondents in the process**. Through mutual commitment it is possible to increase the involvement of the participant who is aware that remuneration will be paid only in the case of full participation and completion of the experiment. The last function of the e-Portal is the **admissibility of interaction between participants and between participants and investigators**- depending on the nature of the performed experiment and decisions of the principal. It should be assumed, therefore, that the working of the e-Portal as a tool for conducting the online experimental research is based on the following function:

Diagram 1. Functions of the e-Portal



Source: Author's collaboration.

USERS OF THE E-PORTAL AND ROLE OF ADMINISTRATORS

Users taking part in the functioning of the research portal can be divided according to their characteristics and position in the study. The primary users are respondents (all registered people who are the potential research sample taking part in the experiment), the investigator (people commissioning the study and determining its course) and sponsors or external companies whose role is to provide the financing and securing the presence of the e-Portal administration. From the point of view of

the organization process and independence of research, an important role is played by the portal administrators who are inspecting the activities of the respondents, investigators and external companies. Their task is not active participation in the research process, but the preparation of suitable environment for carrying out the experiment. The role of administrators is also verification of the data declared by the users which under the premise of transparency affects the final quality of the study. In the case of choosing the particular research sample with specific psychographic or demographic characteristics, it cannot be allowed to examine the persons who declare false data. The task of administrators is also to manage the gratification system for the users which is intended to reduce the risk of fraud and boost the confidence of respondents to the e-Portal.

POSITION AND ROLE OF THE RESPONDENTS

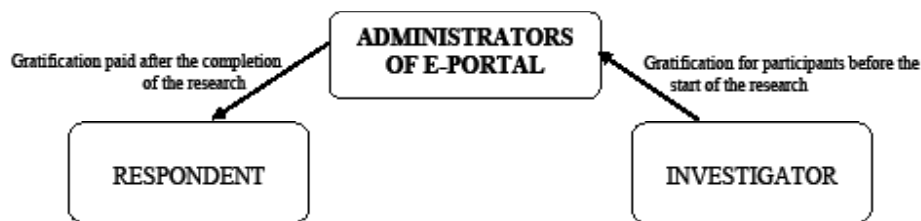
People willing to be involved in the research activity, register on the website e-Portal by setting up a personal account. At this stage, personal information that may be crucial in the final selection of the sample for experimental research is given: age, sex, education, place of residence, marital status, household size. In principle, potential respondents may be asked to provide additional information, depending on the needs of the particular assay. After registering, administrators send a paper contract upon which respondent agrees to participate in the e-Portal activity. Only the physical address indicated by the user can be recognized. To activate the personal account, the respondent must send back the signed contract. After its receipt by the portal administrators account is officially activated and stored in the database. Personal information is not visible to other users of the e-Portal. The request of the investigator to choose the desired sample with given characteristics results in the selection of the registered participants from the database. By each research proposal, the participant must decide if he/she wants to take part in the experiment. It is necessary to inform him/her about the duration of the experiment, its nature and proposed remuneration. After accepting the principles user is engaged into the study.

INVESTIGATOR

A person or institution which is commissioning the research is called the "investigator". He must register on the Internet system to create the professional account where he publishes information about his activities, physical address and tax identification number. Each investigator is obliged to sign an agreement with the administrators of the e-Portal in order to avoid any kind of extortion or fraud and to protect its own interests. The next step is to present the concept of an experimental research by means of the completed form available only for the professional accounts. The investigator describes the size and nature of the research sample, determines the number of groups and decides about the scope of internal interactions and about the nature and length of the whole study. Necessary at this stage is to indicate the size of payment for potential respondents who may decide to accept or reject the proposal. From the point of view of the credibility of the study it is important to provide the proposed remuneration.

ration to the administrators of the e-Portal even before the research starts. In the case of remuneration in the form of cash, the investigator conveys a fixed amount of money, which is equal to the sum of payments for all participants, to the portal administrators who disburse money only if the experimental study is completed. Such action is a form of securing the interest for both the respondents and investigators who are guaranteed about the completion of signed agreement. The investigator is also obliged to pay for the possibility of using the offer of the e-Portal.

Diagram 2. The principles of gratifications on e-Portal



Source: Author's elaboration.

SPONSORS AND EXTERNAL COMPANIES

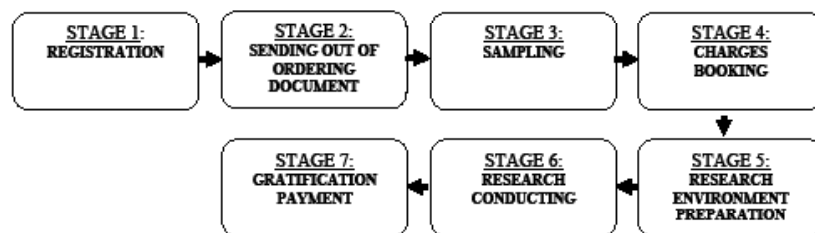
The role of sponsors and external companies has primarily a supportive nature. On the one hand, sponsors may place their logo and ads on the official website. On the other hand, they can transfer also their promotional materials to the participants. External companies, however, do not have access to the data of individual users as well as to the personal and professional accounts. Any sponsorship activity is permitted only upon the agreement of the administrators of the e-Portal who are assumed as a group to be the only people with access to the full database of users. Sponsorship materials cannot be used during the course of experiment because it could make the final result less reliable. The participation of sponsors and external companies in the functioning of the e-Portal is aimed primarily to cover the costs of the administration, legal actions and promotional campaigns.

PREPARATIONS AND CONDUCTING OF THE RESEARCH

The process of preparing and carrying out an experimental study with the use of the e-Portal consists of seven basic steps. The first one is **the registration of personal and professional accounts**, including all legal requirements. When the primary conditions are met, it is possible to move to the next phase - **sending a detailed proposal of the experimental study** in the form of a universal document which is available for professional accounts. On this basis administrators try to **derive the desired research sample from registered users**. Subsequently, **administrators send a proposal to participate in the experiment** which constitutes the third stage of the preparation of the study. The fourth step is **charging the posts or taking the other form of gratification** from the investigator for the future participants. Fifth step is **to prepare a "research environ-**

ment” in which the dominant role is played by the administrators of the e-Portal. On the basis of the previously mentioned document, a virtual place of research is created. Functionally, it resembles the chat window to which participants are prescribed and categorized. Worth noting is that in the ordering sheet the selection of the desired research sample is made in a broad manner: the field of study is defined (consumer behavior, brand management, product management, promotion, etc.), size of the sample and number of groups into which the total sample is divided must be assessed. It is also necessary to determine how many participants each group will contain. From the point of view of detailed selection it is essential to define the sample profile (it should set out the target age group, sex, degree of education, marital status, number of children, size of household, earnings, place of residence, profile of employment, hobbies). The last stage of the ordering document is to define the method and scope of interaction and to designate a moderator who is chosen by the investigator. Communication in the research is provided by chat, interactions between selected group members, monitoring the reaction on the project, filling out the questionnaires. The sixth stage is **performing the research**. The process of preparation and conducting of the research ends with the **payment of any remuneration**. A controversial part of the functioning of the e-Portal is the possibility of introducing data interpretation and inference provided by specialist hiring by the e-Portal. In the initial phase of tool construction it was assumed that the objective of the e-Portal is to make possible the completion of samples and to conduct the research. In such cases, the interpretation and analysis of final results would be at the discretion of investigator. If the e-Portal would have only the form of a research tool, the interpretation of final results is the responsibility of investigator. But if the e-Portal could have a form of commercial tool, introducing the option of ordering interpretation of the results it would be attractive and it could result in additional profits.

Diagram 3. The process of preparation and conducting the research



Source: Author's elaboration.

THE USE OF THE E-PORTAL IN EXPERIMENTAL MARKETING RESEARCH

The tool of an e-Portal, can be used to study the majority of the problems, which are of interest for contemporary marketing. Depending on the choice of investigator, it is possible to gather opinions on the perception of the product, brand, consequences of rebranding, product adaptation, distribution, promotion, communication, etc. Thanks to the broad possibilities of the adaptation of research environment into each

particular experiment, it is possible to confront groups and to collect detailed data with the use of Internet. The e-Portal can be used for scientific research by a number of entities: academic institutions, companies, public institutions, non-governmental organizations. In the field of access to the tools there is no limit in the range of investigator profile. In principle, the e-Portal should be a tool universally available, especially because of the need to gather various users with different demographic and psychographic characteristics. Continuous expanding of databases is provoking the question in which direction the e-Portal should develop? It is worth taking into account the commercial nature of this tool because of the necessity of several covenanting and controlling the research process by specialists which require financial outlays.

LIMITS IN THE FUNCTIONING OF THE E-PORTAL

One of the limitations of the e-Portal is the necessity to pay the legal department and the accounting officer whose task is to control the environment and to prevent negative effects of legal actions. This fact is connected with the costs which should be covered by external companies, sponsors and people ordering the research. However, at the initial stage of the functioning of the e-Portal it is not possible to predict whether the obtained funds will be sufficient to pay for aforementioned entities. Thus, the cost of running an e-Portal seems to be the most serious limitation, particularly in the face of the uncertain profitability of the project. Another limitation is the structure and profile of Internet users. The initial assumption of an e-Portal was to gather people with various demographic and psychographic profiles which would provide the proper selection of desired research samples. However, as it was presented in previous investigation about Internet users' structure, there is an underrepresentation of persons over sixty years old. It has to be noted that this group of users would be involved in a greater number of potential experimental studies than others.

It remains an open question whether it would affect their activity in the experiment and some kind of certain automaticity of answering? On the other hand, it is not proven that people ordering the experiment would be more interested in making research with this age group than with other ones. It can be disputed how much real confidence participants will have towards the e-Portal. On the one hand this tool can be seen as a potential source of obtaining extra money for participation in the study. On the other hand, because of the high level of distrust of Internet users towards the virtual world, it is still questionable whether the legislation and the gratification would be sufficient factors for changing their current views about the Internet.

From the point of view of the geographical scope of the e-Portal activity, there is still the disproportionate access to the Internet in less urbanized areas. This could also result in problems concerning the proportionality and frequency of enrolling the same participants into further research. Moreover, people involved in numerous experiments may develop universal models of behavior and response to similar research problems what would greatly restrict the veracity of the final results. One possible solution to this problem is the restriction to participate in only two experimental studies per year within the same declared category of research by one participant. After use in two possible surveys, a personal account would be blocked for a period of one year.

CONCLUSIONS

Experimental studies conducted via Internet have been developing dynamically since the mid-90s of twentieth century. Their potential was noticed by both research centers and companies wishing to monitor regularly the surrounding environment and to adapt their products into new challenges and trends (Ledolter, & Swersey, 2007). Internet experimental studies are not only the domain of marketing or economic sciences. Their use makes it possible to conduct research on issues concerning sociology, political science, psychology, etc. Quantitative research in the form of short surveys are developing rapidly. Several previously described barriers affect the limitation of forms in which research can be conducted via Internet. Some of the most desirable types of research in the virtual world are considered to be experimental studies due to the possibility of mapping the actual environmental conditions and on this basis, conducting the examination of attitudes and behaviour of the respondents (Berndt, 1996). The concept of the e-Portal as a tool which would make possible an experimental study via Internet is based on the principles of functioning of social media, databases and interactive communication tools (including chat). Thanks to the legal regulations, the e-Portal should be perceived as a safe tool for both investigators and participants who want to obtain the proposed gratification after the completion of the experiment. Assuming that this tool will have commercial and universal form (for all eager people after meeting the legal conditions), it can be anticipated that it will be an attractive business project for sponsors and external companies who will have the possibility to make promotional and information campaigns on its basis. The tool which combines the features of the most popular applications and websites beside their usefulness, has a high potential of profitability. From a practical point of view, it is therefore an attractive channel for future research that could improve the work on experiments conducted over the Internet not only for marketing purposes but also for interdisciplinary ones.

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