

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Information Technologies



Bachelor Thesis

Online Survey Tools:

**Application of an online survey tool
in a non-profit organization**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Department of Information Technologies

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Novák Daniel

Economics and Management

Thesis title

Online survey tools

Objectives of thesis

Main objective of bachelor thesis is to analyze the use of an online survey tool when conducting a research.

The partial goals of the thesis are:

- Analysis of characteristics of an online survey tool and classical paper based method,
- Identification of advantages and disadvantages of both methods, and
- Verification of the hypothesis within a case study.

Methodology

Methodology of the thesis is based on study of literature and analysis of specialized information resources. In practical part of the thesis, a case study of using an online survey tool is conducted. Based on a case study and results of own solution, a hypothesis is verified.

Schedule for processing

- 1) Preparation and study of specialized information resources, refinement of partial goals and selection of work process: 06/2012
- 2) Processing of literature overview according to information resources: 07/2012 - 10/2012
- 3) Development of the own solution, discussion and evaluation of results: 11/2012 - 01/2013
- 4) Creation of the final document of the thesis: 02/2013 - 03/2013
- 5) Submission of thesis and abstract: 03/2013

The proposed extent of the thesis

30-40 pages

Keywords

Research, survey, online survey tool, marketing.

Recommended information sources

ŘEZÁNKOVÁ, Hana: Analýza dat z dotazníkových šetření, 3rd edition. Praha: Professional Publishing, 2011. 223p. ISBN 978-80-7431-062-1.

DISMAN, Miroslav: Jak se vyrábí sociologická znalost, 3rd edition. Praha: Karolinum, 2002 p. 347, ISBN 80-246-0139-7

KOTLER, Philip, AMSTRONG, Gary: Principles of Marketing, 14th edition. United States of America: Pearson Education, Inc., 2011. 744p. ISBN 978-0273752431

BHASKARAN, Vivek, LECLAIRE, Jennifer: Online Survey for Dummies, 1st edition, Indianapolis, Indiana: Wiley Publishing, Inc, 2010. 360p. ISBN 978-0470527962

STIEGER, Stefan, REIPS, Ulf-Dietrich: What are participants doing while filling in an online questionnaire: A paradata collection tool and an empirical study In Computers in Human Behavior, Vol. 26, Issue 6, 2010. 1488-1495p.

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Prague March 4. 2013

Declaration

I declare that I have worked on my bachelor thesis titled "Online Survey Tools: Application of an online survey tool in a non-profit organization" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on

Daniel Novák

Acknowledgement

I would like to thank Ing. Miloš Ulman, Ph.D. and all other persons, for their advice and support during my work on this thesis.

**Online dotazníkové nástroje:
Použití dotazníkového nástroje v neziskové organizaci**

Online Survey Tools:

Application of an online survey tool in a non-profit
organization

Souhrn

Tato bakalářská práce je zaměřena na využití online dotazníkových nástrojů v neziskovém sektoru. Zároveň se zaměřuje na porovnání těchto online nástrojů vůči metodě sběru dat formou tištěného dotazníku.

Cílem teoretické části je seznámit s cíli, metodikou a obecnými pojmy řešené problematiky. Praktická část představuje občanské sdružení ASA (Asociace studentů a absolventů, o.s.) a projekt TOP zaměstnavatelé - průzkum mezi studenty vysokých škol v ČR o představách studentů o budoucím zaměstnání. Dále je v práci sestaven přehled a porovnání vybraných dotazníkových nástrojů. Na základě případové studie jsou porovnány dvě metody sběru dat při realizaci průzkumu TOP zaměstnavatelé z hlediska času a financí. Výsledky praktické části ověřují stanovené hypotézy. Protože je ASA nezisková organizace, výsledky praktické části mají organizaci ukázat, která z dvou porovnávaných metod je pro ASA efektivnější.

Klíčová slova:

TOP zaměstnavatelé

Průzkum

Online průzkum

Papírový dotazník

Respondent

Nezisková organizace

Sběr dat

Efektivita

Summary

Focus of this bachelor thesis is on the use of online survey tools in a non-profit sector. It also demonstrates the comparison of an online form of data collecting to a paper-based form.

The theoretical part introduces the objectives, methodology and the general terms of the problem solving. The practical part introduces the civic association ASA (Association of students and graduates) and the project “TOP employers” – the survey among university students in the Czech Republic that targets students' perceptions of their future employment. The bachelor thesis also compiles an overview and comparison of the selected survey tools. Based on the case study, the two methods of data collection are compared in terms of time and finances when realizing the survey. The results of the practical part validate the stated hypotheses. As the ASA is a non-profit organization, the results of the practical part should indicate to the ASA which one of the two compared methods is a more effective solution for the ASA to use in terms of finances and time.

Keywords:

TOP Employers
Research
Online survey
Paper-based survey
Respondents
Non-profit organization
Data collection
Effectiveness

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1. Introduction

Online surveys as research tools may be encountered in various environment. For the purpose of collecting data online survey tools may be used by individuals, non-profit organizations or economic entities. The nature of data collected is determined by the needs of authors of a survey and their objectives. The final form of a survey can be affected by different circumstances such as the economic capabilities of an author, size of a focus group and by the fact that the stage of data collection can be executed in several methods.

In order to make a survey more effective, it is necessary to consider all of these variables and to choose the suitable method for surveying. For example, for non-profit organizations an online survey tool can be an effective tool for doing their researches and can help these organizations to improve their projects by providing feedback or other interesting data.

When we look at the non-profit sector today the basic motive of any activity of these organizations is not to make a profit but to service the community. In other words we can say the focus of a non-profit organization is to provide assistance in all areas of human life and an attempt to help.

However there has to be some source of funding for the implementation of any meaningful activity. Obtained funding is returned back to the non-profit sector and is also used for the future operation of non-profit organizations. In this bachelor thesis one of the projects for funding this organization is the survey called TOP employers 2011/2012.

The author considers the main contribution of the bachelor thesis in comparing an online survey tool to the selected method of data collection, particularly in terms of finances and time. These aspects are very important in the non-profit sector because there is less funding in the non-profit sector than in the standard market environment.

2. Thesis objective and methodology

Focus of this bachelor thesis is on the use of online survey tools in a non-profit sector. It also demonstrates the comparison of an online form of data collecting to a paper-based form.

The practical part introduces the civic association ASA (Association of students and graduates) and the project “TOP employers” – the survey among university students in the Czech Republic that targets students' perceptions of their future employment. The bachelor thesis also compiles of an overview and comparison of the selected survey tools. Based on the case study, the two methods of data collection are compared in terms of time and finances when realizing the survey. The results of the practical part validate the stated hypotheses. As the ASA is a non-profit organization, results of the practical part should indicate to the ASA which one of the two compared methods is a more effective solution to use in terms of finances and time. The practical part evaluates whether the following hypotheses have been proven:

Hypothesis 1

Using an online survey tool is a more effective and less expensive survey method for the ASA than paper based survey.

Hypothesis 2

An online survey tool for the purpose of the survey “TOP Employers” is a more effective solution in comparison to the paper-based form.

Research method of the bachelor thesis is comparative analysis. The “TOP Employers” 2011/2012 will be used for initial analysis to gather information for this bachelor thesis with the aim to prove the hypotheses from different perspectives: financial and time.

It is also necessary to mention that for the discretion of the ASA, some important information in the practical part of this bachelor thesis is deliberately altered or given in a distorted way.

3. Literature review

3.1 Non-profit Sector

The non-profit sector plays an important role in the economic and political environment of developed countries. It balances the pressure of economic interest of the strongest participants in all types of market.

An understanding of the non-profit sector can be described as a set of institutions that exist outside of state structures. It serves essentially in the public interest, as opposed to non-state interests (Škarabelová et al., 2002).

Salamon and Anheier (1997, 1997) narrows the previous broad definition into the internationally recognized **structurally - operational definition**, which can be determined by five common features under which non-profit organizations are:

- Organized
- Private
- Non-profit-distributing
- Self-governing
- Voluntary

Organized, i.e., institutionalized to some extent. Non-profit organizations have certain institutional structures regardless of whether they are legally or formally registered.

Private, i.e., institutionally separate from government, nor are managed by government. Non-profit organizations are non-governmental in the sense of being structurally separate from the instrumentalities of government. This does not mean that they may not receive significant government support or even that government officials cannot sit on their boards.

Non-profit-distributing, i.e., in this sense, they are not allowed to distribute profit from any activities of the organization among the owners or management of the

organization. Non-profit organizations can run such activities that can be profitable, but the profit must be returned back to the objectives of the mission of the organization.

Self-governing, i.e., equipped to control their own activities. Non-profit organizations can maintain their autonomy through internal governance procedures.

Voluntary, i.e., some degree of voluntary participation must be practised. To be included in the non-profit sector, organizations must embody the concept of voluntarism to a meaningful extent.

3.1.1 Non-profit Organization in the Czech Republic

In this section of the bachelor thesis the author outlines a brief introduction to the basic areas of activity of the international non-profit organizations and non-profit organizations in the Czech Republic. For purposes of this bachelor thesis more focus is given to the basic division of the Czech non-profit organizations, especially to a Civic Association.

Non-profit organizations (NPOs) are independent of the state and their efforts focus on providing assistance in all areas of human life. The basic motive of activity is not a return on investment, but always good will and an attempt to help the targetted group. Any profits are reinvested in the organization.

The Czech and foreign non-profit organizations operate in similar areas. The international classification of the non-profit organization defines **12 fields for these entities** (Salamon, Anheier, 1996):

- | | |
|----------------------------|---------------------------------------|
| 1. Culture and recreation | 7. Law, advocacy and politics |
| 2. Education and research | 8. Philanthropy |
| 3. Health | 9. International |
| 4. Social services | 10. Religious congregations |
| 5. Environment | 11. Business and associations, unions |
| 6. Development and housing | 12. Other |

Brhlíková (2004) has a quite interesting definition of the Czech non-profit sector: “The Czech non-profit sector refers to entities that are, by the choice of their organizational form, not run for profit” and that the aim is to provide beneficial services available to the public”.

Czech law does not define neither the concept of a civic sector nor a non-profit organization. The nature of non-profit organizations falls within the scope of the Czech Civil Code. Czech non-profit organizations are defined as legal persons by the basic division of legal entities according to §18 of the Civil Code (Škarabelová, 2005).

Based on the Civil Code a number of prevalent types of such organizations can be distinguished as such, including civil associations, churches and religious congregations, foundations, funds, and public benefit corporations (Frič et al., 1998).

Škarabelová (2002) adds that the Government Council for non-profit organizations, an advisory body to the Czech Government, classifies non-profit organizations into two basic groups:

- Government non-profit organizations
- Non-governmental non-profit organizations

Government non-profit organizations

They are state, public non-profit organizations that execute mainly the public administration. Their mission is to participate in the performance of public administration at a national, regional or community level. Their legal forms are beneficial organizations and organizational units of the state such as county council or municipality. They are not established to do business and make profits, which would be divided among the members of the organization.

Non-governmental non-profit organizations

They are organizations whose existence is based on the principle of self-management, which is the ability of people living and working in partnership in a particular space, to

organize and regulate their conduct with each other. Thanks to the freedom of association being one of the fundamental freedoms of a democratic state, citizens can organize themselves into different types of NGOs.

This sector recognizes the following four legal forms of non-profit organizations:

- **Civic association**
- Generally beneficial associations
- Legal entities established by the church or religious organizations
- Foundations and charities

In the next chapter and for the purpose of this bachelor thesis the term Civic Association will be further defined.

3.1.2 Civic Association

A Civic Association is one of the most common legal forms of non-profit organizations in the Czech Republic.

A Civic Association can be established under the Citizens Civil Law Associations Act No. 83/1990 Coll. of March 27, 1990, as amended (Ministry of Interior of the Czech Republic, 2013).

Czech citizens have the right to associate freely without the permission of the state authority. This Act mentioned above does not apply to the association of citizens in political parties and political movements, for employment or to ensure the proper practice of certain professions, churches and religious societies.

A Civic Association is an independent legal entity. Government authorities may intervene in its business but only within the law. A Civic Association registers at the Ministry of Interior of the Czech Republic and receives the identification number from the Czech Statistical Office.

Members can be both physical and legal entities. Registration proposals have to be submitted by at least a three-member preparatory committee, in which at least one person must be over eighteen years of age.

The Ministry of Interior registers articles of association that shall include the name of the association headquarters, the goal of the association, its bodies and how they were established (Růžičková, 2006).

3.1.3 Financing of Civic Associations

Frič at al. (1998) states that, the establishment of a civic association is not necessarily linked to the pursuit of purposes generally beneficial to the public at large. It is not illegal for an already established civic association to engage in unsystematic and economically marginal entrepreneurial activity to generate income to support its activities. Any profit generated from such activities shall be fully taxed. Such profits have to cover the cost of the aims of the association. However, it is prohibited to divide the profit amongst members.

Růžičková (2006) agrees and adds that Civic Associations use various sources of financing for their activities. According to the above Act No. 83/1990 Coll., a Civic Association may carry out an activity, even activities for which you must obtain a business license (eg., clubs, sports organizations). An exception is not even a Civic Associations that founded a company. This effort is conducted in order to obtain additional resources to finance the basic mission of Civic Associations.

According to Růžičková (2006) there may be another source of funding:

- Income from own assets and its own activities
- Membership fees
- Subsidies from the state budget
- Grants from the budget of local governments

- Gifts from legal persons
- Donations from foundations

Civic Association ASA (Asociace Studentů a Absolventů) receives funds from the realization of its projects such as the survey “TOP Employers” - a survey among university students. When the survey is finished, the results are discussed with the corporate sector that provides ASA with financial compensation for the information.

This thesis aims to verify the hypotheses determined in order to find whether the online survey tool is a more efficient way of collecting data in the case of ASA’s project “TOP Employers”. Therefore, the following section of this thesis is devoted to surveys.

3.2 Survey

In this chapter, the attention is focused on the basic division of research. More attention is devoted to the tools for data collections such as online surveys and paper-based surveys.

Surveys are part of a research that investigate and study materials in order to establish facts and come up with new conclusions (Oxford University Press, 2013)

Kothari (2004) in his publication lists these basic types of research:

- Descriptive vs. Analytical
- Applied vs. Fundamental
- **Quantitative vs. Qualitative**
- Conceptual vs. Empirical
- Other types of research - all other types of research are variations of one or more of the above stated approaches. It is based on the purpose of research, the time required to accomplish research, on the environment in which research is done, or on the basis of other similar factors.

For purpose of this bachelor thesis Qualitative approach is shortly mentioned, but the Quantitative approach, surveys, get more attention in the following sections.

- Qualitative approach
- **Quantitative approach**

Qualitative approach

The approach is concerned with subjective assessment of attitudes, opinions and behaviour. Research in such a situation is a functional for the of researcher's insights and impressions. Such an approach to research generates results either in non-quantitative form or in the form of which is not subjected to rigorous quantitative analysis. Generally, techniques of focus group interviews, projective techniques and depth interviews are used for research.

For the purpose of this bachelor theses the Quantitative approach surveys are analyzed further in depth than the Qualitative approach surveys in the following sections.

Quantitative approach

The Quantitative approach is based on the measurement of quantity or amount. It is applicable to subject that can be analyzed in terms of quantity. It involves the generation of data in quantitative form, which can be subjected to rigorous quantitative analysis in a formal, structural and almost rigid fashion. In this approach a sample of population is studied to determine its characteristics and it is then inferred that the population has the same characteristics (Kothari, 2004).

A common way of conducting quantitative research is using a survey.

Surveys can be encountered in everyday life. Social scientists, such as political scientists, psychologists, and sociologists, use surveys in their research for a variety of reasons, both theoretical and applied (Shaughnessy et al., 2011).

A survey can be defined as a system for gathering information from or about some people. Collected information helps to describe, compare or explain people's knowledge as well as attitudes and behaviour (Fink, 2003).

Such pragmatic needs are used for purposes of the media, political candidates, public health officials, professional organizations, and advertising and marketing directors and as a way to support political or social agendas (Shaughnessy et al., 2011).

Through a survey a broad range of decision-making processes can be addressed. Here are some basic categories where a survey can be used for the creation of company strategies:

- Market size, description and segmentation, market shares, market potential and competition analysis
- Customer behaviour and habits, motivation and factors influencing a purchase
- Brand awareness, attitude toward the brand, customer satisfaction customer loyalty and customer segmentation
- Product and price tests
- Web site testing and user interface tests
- Media research
- Employee satisfaction (Data Collect s.r.o., 2010)

3.2.1 Selection of an appropriate method for data collection

There are several methods of data collection. Kothari (2004) states that the researcher must carefully select the method of the study keeping in mind factors such as:

- **Nature, scope and object of enquiry:** This factor indicates whether the researcher should look for already available data (secondary data) or collect new data (primary data)
- **Availability of funds:** This is a key factor that determines the method to be used for collection of data. With limited source of funds, a cheaper method has to be selected and may not be as efficient and effective as a more costly method. This factor plays the key role that limits researchers
- **Time factor:** Some methods can take significantly more time, thus, putting another constrain on a researcher while selecting the proper method for data collections

3.2.2 Methods of Data Collection

Once the constraints are dealt with, it is important to decide how to collect information from the respondents.

There are four general methods:

- Personal interviews
- Telephone interviews
- Mail surveys
- **Online surveys**

Personal Interviews

The Personal interview method requires a person known as the interviewer asking questions generally in a face-to-face contact with another person or persons (Kothari, 2004).

Shaughnessy et al. (2011) agrees and adds that when personal interviews are used to collect survey data, respondents are usually called on in their homes or in shopping centres, and trained interviewers carry out the questionnaire. The personal interview allows more flexibility in asking questions than does for example the mail survey.

On the other hand, Kothari (2004) points out that this method is very expensive, especially when more respondents are to be taken. On top of that, Kothari (2004) mentions that this method is also time-consuming.

Telephone Interviews

This type of method is often used for not in-depth surveys. The prohibitive cost of personal interviews as well as difficulties supervising interviewers are one the main reasons that have led survey researchers to start using telephone surveys (Shaughnessy et al., 2011).

The telephone survey, like the other survey methods, has some drawbacks. Kothari (2004) claims that respondents are given too little time for answering and sees the other main disadvantage is asking questions that have to be very short.

Shaughnessy et al. (2011) adds that a possible selection bias exists when respondents are limited to those who own telephones.

Mail surveys

This method can be considered as a quick and convenient way to distribute self-administered questionnaires that respondents fill out on their own. Among the four survey methods, mail surveys are the best for dealing with highly personal or embarrassing topics, especially when respondents are asked for some personal data (Shaughnessy et al., 2011).

Unfortunately, there are significant disadvantages to mail surveys. Some of these Kothari (2004) defines as:

- Low rate of return
- Low control over questionnaire once it is sent
- The slowest method of all

The researcher has several different possibilities of how to collect the data. It is an array of possibilities that continues to grow, however, to be broadly divided into two categories: interviewer-administered; and self-completion (Brace, 2004).

One of the methods that can be understood as a self-completion method of data collection is an online survey. This method of data collection is mentioned in one of the next sections of this thesis.

3.2.3 Stages of a Survey

A survey can become a multiple step process with a clearly specified protocol at each step (IBM, 2013).

There are five general stages that are necessary to go through in order to successfully develop and complete a survey (Czaja, Blair, 2005)

- Survey design and planning – part of a preparation stage
- Pretesting – part of a preparation stage
- Final survey design and planning – part of a preparation stage
- Data collection – belongs to a realization stage
- Processing and Analysis of Data - interpretational stage

Survey design and planning

It is important to determine goals, budget and other resources available for a survey so that the desired goals can be met (IBM, 2013).

Kothari (2004) states that it is important to define survey design as it helps with planning, including the methods and techniques of data collection, keeping in mind the objective of the survey, availability of staff, time and money.

Pretesting

Pretesting, sometimes called piloting, is the crucial part of the construction process of a questionnaire. It allows testing of a researcher's instrument in as similar conditions as possible. Outcomes of such pretesting provides the researcher with ability to spot any glitches in wording of questions, lack of comprehensibility or anything that could have negative impact on data collection (Adolphus, 2013)

Final survey design and planning

In this stage of revision any potential problems are eliminated and other improvements can be made in order to get the best possible results. From this stage other testing can be done before proceeding to the data collection stage.

Data collection

Once the previous development and preparation stage is completed, it is possible to start collecting the data. In order to maintain collection of clean, unbiased and up-to-date data it is necessary to choose an appropriate method of data collection (Brancato, 2006).

Processing and Analysis of Data

Once the collecting data has been completed, the data has to be processed and analysed. Processing of data includes, for example, editing, coding, classification and tabulation of collected data. The data can be analysed in the sense of computation of certain measures along with searching for corresponding relationships that exists among data-groups. However, analysis of data can also be understood as a way of summarizing the collected data and organizing it in such a manner that they answer the research questions (Kothari, 2004).

3.2.4 Paper – based survey

Paper-based survey in the context of this bachelor thesis can be understood as a traditional way of collecting data when doing face-to-face personal interviews where the interviewer may act as a recruiter for a self-completion interview (Brace, 2004).

Brace (2004) also claims that paper-based surveys can be used within Interviewer-administered interviews and may contain self-completion sections where respondents are left to complete the interview themselves. The presence of an interviewer is to answer any queries.

As in the previous method, the paper-based method has some advantages and disadvantages. Main advantages of face-to-face administration of a questionnaire such as an interview style questionnaire are:

- Explanation on complex and sensitive issues
- Allows participants to be more spontaneous
- Delivering the questionnaires to defined recipient

- Better quality of data

On the other hand, the following disadvantages may exist:

- Cost – interviews are more expensive than postal or online surveys
- Time – large groups and areas takes longer to cover
- Socially acceptable answers – answers may not be true, instead more favourable answers (Brophy, 2008).

3.2.5 Online Survey

The vast availability of an Internet connection and the fast pace at which online technologies improve has led to a rise in Internet-based research, mainly in the form of online surveys. Ease of use, relatively low cost compared to other methods, and advanced capabilities make Internet surveys an appealing medium to many researchers for obtaining survey responses.

Brace (2004) states that online surveys can be categorized as a self-completion form of data collection, mainly accessed via a Web page or by email.

Other sources (Bhaskaran, LeClaire, 2010) understand the definition of online survey as the easiest way to distribute and collect information with the great speed of creating customized surveys based on different target demographics.

Shaughnessy et al. (2011) adds some advantages of using this form of data collection depending on the sophistication of the software:

- Large and potentially various samples can be obtained
- High number of participants who vary in age, ethnicity, and even nationality can be contacted
- Reduced time and labour relative to mail, telephone surveys and personal interviews

- No need for paper, thus saving natural resources and copying costs
- Convenience for respondents to participate from the comfort of their home, office, dorm room
- Potential for millions of responses to be automatically recorded and summarized

On the other hand Kothari (2004) points out some weak points of using online surveys such as:

- Potential for response rate bias
- Lack of control over the research environment

Brace (2004) agrees and adds that self-completion studies can also suffer from there being no interviewer to identify when a respondent has misunderstood, or to ask for clarification where there are inconsistencies, or to probe for fuller answers.

3.2.6 Stakeholders in Questionnaire

A questionnaire is understood as the primary research instrument in a survey research (Shaughnessy et al., 2011) and also as a set of prepared and structured questions given exactly in the same form to a group of people in order to gather data regarding some topic(s) in which a researcher is interested (Jupp, 2006).

But there are a number of different stakeholders in the questionnaire, on each of whom the way in which it is written and laid out will have an effect. There can be up to five different groups of people who have an interest in the questionnaire, and each one has a different requirement of it (Brace, 2004):

- **The clients:** They require the questionnaire to gather information that will help them to achieve their business goals
- **The interviewers:** Where used, they want a questionnaire that is clear to understand by respondents and easy to administer

- **Respondents:** With little time to spare, they want a questionnaire that poses them questions they do not have to think over for a long time and ideally without any effort, and holds their interest to the end of the survey
- **The data processors:** They are interested in unproblematic data entry for direct production of required analysis

The researcher or questionnaire writer: They have to endeavour to meet all of these stakeholder's needs taking into account parameters such as a budget (funds) agreed with the client, which in turn means working within an agreed length and survey structure (Brace, 2004).

3.2.7 Questionnaire structure

It is very important to define the right questionnaire structure to get the best results from the survey.

So far as the general form of a questionnaire is concerned, there are two types of questionnaire structure (Kothari, 2004):

- Structured – questionnaires in which there are definite, concrete and pre-determined questions. Structured questionnaires are easy to manage and comparatively cheap to analyse
- Unstructured – formulated around open questions and unstructured interviews. It enables further questions to be asked beyond what has been planned

In the introduction to the questionnaire, the title or subject of the survey should be provided. Also the purpose of the survey should be mentioned, and the respondent should be asked for his or her cooperation (Brancato et al., 2006)

The core part of the questionnaire structure should inspire respondents to answer the questions as accurately as possible. It should be as straightforward as possible and allow the respondent go smoothly from one question to the next.

At the very end of a survey it may be appropriate to thank the respondents for their time spent when participating in a survey.

3.2.8 Types of question

Questions should be created carefully in order to avoid any sort of misunderstanding and bias. Well-formed questions will increase the quality of a survey.

The main types of questions are (Trochim, 2006):

- **Dichotomous Questions** – are such questions that have only two possible response Yes/No, True/False or Agree/Disagree
- **Questions based on level of measurement** – can be classified in terms of level of measurement

For example nominal questions may measure type of occupation where a number is used as a choice: 1=Plumber, 2=Teacher, 3=Car Driver

Ordinal questions rank order preferences of respondents, for example: Rank the employer from best to worst (1=the best, 3=the worst)... __Deloitte, __AT&T, __Vodafone

Internal level is also known as a Likert Scaling. Common format is five-level Likert item: 1. Strongly disagree, 2. Disagree, 3. Neither agrees nor disagree, 4. Agree, 5. Strongly agree

- **Filter or Contingency questions** – these types of questions determine whether the respondents, if asked one question, are qualified to answer subsequent questions. For example: Have you ever driven a car? Yes or No. If Yes, for how many years?
- **Open-ended or closed-ended questions** – open questions expect to be answered spontaneously in the respondent's own words. Closed questions requires answers such as Yes/No, or have some frame of answer respondents can choose from and there is no need for opening further conversation
- **Multiple Choice questions** – the respondents select one or more of the best possible answers among presented options

3.3 Effectiveness

At the beginning of a survey there are some basic but important constraints such as limited funds or time that have to be dealt with so a client or a researcher looks for the most effective solutions.

The main aim of this bachelor thesis is to prove the hypothesis that an online survey tool for the purpose of the survey “TOP Employers” is the more effective solution. Therefore, the following chapter introduces a basic definition and types of effectiveness.

The core definition states that effectiveness is the point of degree to which an activity fulfils its designated purpose or function (Harvey, 2012).

According to other definitions, effectiveness also means to achieve the desired results with a minimum expenditure of used resources such as:

- Energy
- Materials
- Time
- Money

In most cases, effectiveness is understood as the economic evaluation, where the achieved effect is compared to the cost incurred (Ústav pro ekopolitiku, o.p.s., 2007).

4. Own Work

4.1 Introduction of the civic association ASA

The civic associations ASA (Asociace studentů a absolventů), hereinafter "ASA" is a student and graduate, voluntary, non-profit, politically independent, educational association established under the Citizens Civil Law Associations Act No. 83/1990 Coll. of March 27, 1990, as amended. This organization brings together students and graduates of universities, colleges and secondary schools in the Czech Republic. The association is a legal person under the Czech law.

The ASA's main goal is to contribute to the development of people of all ages in different directions, especially to the development of their professional skills, teamwork and project management. ASA tends to support the development of contacts and cooperation between students-students, students-graduates and graduates-students.

Activity of the Association consists of:

- 1) Organization of educational programs, projects, seminars and conferences (with international participation) for members and supporters of ASA
- 2) Cooperation with partner associations of ASA and other organizations in similar fields of interest at home and abroad
- 3) Ensuring participation of members, supporters of ASA within the actions referred to in point a)
- 4) Awareness raising activities in teamwork and project management
- 5) Support of similar field related associations and charitable events
- 6) Arrangement of contacts between students, graduates and economic entities
- 7) Provide the economic sphere with additional services such as publication of information and promotional materials, advertising or promotional activities

4.1.1 The survey TOP Employers

For implementation of such activities the ASA fundraise money from sponsors and partners of various projects. One of these is the survey named “TOP Employers” (Czech equivalent = TOP zaměstnavatelé), it surveys among thousands of university students about their perceptions of a job market, their future employment and future income.

The first survey of this kind of was carried out in the academic year 2011/2012 in cooperation with universities, student associations and corporate partners. The outcome of the survey provided unique data to the Czech labour market and to university students. It also indicated where students, future graduates could apply for a prestigious job. The project also indicates to companies how to become a preferred employer.

Benefits of the project:

- Objective Information – the survey should provide students, universities and companies with up to date, realistic and a detailed view of the desired employers.
- Useful information – the outputs of the survey may serve as a source of information for action plans in relation to the target group. In the long term view, all stakeholders may receive consistent feedback on the job market

The target group of the survey

- Students of Czech universities
- Ages between 18 – 30 years old

Basic facts about the online survey “TOP Employers” 2011/2012:

Number of valid responses

7,955 respondents

Period of data collection

November 21, 2011 – December 14, 2011

Method of data collection

Online survey

The questionnaire was designed and data collected in an online environment through the specialized web-based survey service www.SurveyMonkey.com. For the purpose of the survey “TOP Employers” 2011/2012 ASA signed up for a paid account. Details of all costs will be introduced in another chapter.

The survey “TOP Employers” 2011/2012 will be used for initial analysis of this bachelor thesis with the aim to prove the hypothesis, that an online survey tool for the purpose of the survey “TOP Employers” is a more effective solution in comparison to paper based form.

ASA and the author of the bachelor thesis realize the importance of defining each other’s part of work. The “TOP Employers” survey was conducted by the author of this bachelor thesis in an employment relationship with the ASA. For this reason, it is important for readers to clarify the role of stakeholders in the survey. The ASA provided the author of the thesis financial support for the implementation of the survey, including a communication channel to distribute the survey through the mail database of the ASA and partner organizations. The ASA also paid for the license of using the web-based survey tool SurveyMonkey.com.

The idea of implementing a nationwide survey among Czech university students belongs to the author of this work. The questionnaire design and implementation of the survey into the online survey tool SurveyMonkey.com was also realized by the author himself. The survey tool was chosen based on previous positive experiences and knowledge of the tool.

4.1.2 Overview of existing online survey tools

In today's Internet age, there are many online survey tools for data collection. In this part of the thesis, it helps to compile a list of available tools available in the Internet space.

The list is current at the time of the writing of the thesis. An overview is compiled alphabetically. Some online survey tools provide the ability to translate part of the user interface into other international languages. One of those tools that provide this feature is SurveyMonkey.com. Below is the list of survey tools in the Internet space.

Survey Tools	URL
2ask.net	http://www.2ask.net/
Allegiance.com	http://www.allegiance.com/solutions/surveys
Click4survey.cz	http://www.click4survey.cz/
CostumInsight.com	http://www.custominsight.com/
CreateSurvey.com	http://www.createsurvey.com/
Google Docs	docs.google.com
Dotazniky.cz	http://dotazniky.cz/
eSurveyspro.com	http://www.esurveyspro.com/
Formees.com	http://www.formees.com/cz
FreeOnlineSurvey.com	http://freeonlinesurveys.com/
Hosted Survey	http://www.hostedsurvey.com/home.html
i-Dotaznik.cz	http://www.i-dotaznik.cz/
iSurvey.com	https://www.isurveysoft.com/
KeySurvey.com	http://www.keysurvey.com/
KwikSurvey.com	http://kwiksurveys.com/
Likeex.eu	http://www.likeex.eu/index.html
LimeSurvey.org	http://www.limesurvey.org/
MakeSurvey.com	http://www.makesurvey.net/
MySurvs.com	http://www.mysurvs.com/
Noro Online Research	https://www.noro.com/pricing.html
OurSurvey.biz	http://www.oursurvey.biz/cs
QuestionBuilder.com	http://www.questionbuilder.com/
QuestionPro.com	http://www.questionpro.com/
SurveyConnect.com	http://www.surveyconnect.com/
SurveyCrest.com	http://www.surveycrest.com/
SurveyGizmo.com	http://www.surveygizmo.com/a/?utm_expId=50278599-8
SurveyGoldSolutions.com	http://www.surveygoldsolutions.com/index.html
SurveyMonkey.com	http://www.surveymonkey.com/
SurveySimply.cz	http://www.surveysimply.cz/
SurveySystem.com	http://www.surveysystem.com
SurveyWriter.com	http://www.surveywriter.com/home/contact_us.html
Survio.com	http://www.survio.com/cs/
Vovici.com	http://www.vovici.com/
VyplnTo.cz	http://www.vyplnto.cz/
ZapSurvey.com	http://www.zapsurvey.com/#
Zoomerang.com	http://www.zoomerang.com/

All the domains on the list were active at the time of writing this thesis. The one exception is the domain Dotazniky.cz where the tool was still being developed. The author of the thesis does not exclude the possibility of some other survey tools.

It is crucial to choose the right survey tool for creating good questionnaires as well as to store all data in a secure place once they are collected. Therefore, another table was compiled in order to provide a brief comparison of selected survey instruments according to availability and selected functions. In the following table there are the four survey tools chosen from the list above in order to be evaluated based on personal experience of the author of the bachelor thesis and available information from their websites. One of the survey tools from the following table could be potentially used in the next year of the survey “TOP employers”.

Table 1. Online Survey Tools Comparison

	Google Docs	LimeSurvey.org	SurveyMonkey.com	VyplnTo.cz
Feature				
Price	Free; only Gmail account required	Free; open source survey tool	Basic account for free; pricing plan from 25€/per month to 300€ - 800€/ per year	From 0 € - 242 € / per year
# of Survey	Unlimited	Unlimited	Basic account limited to 1 survey; paid accounts with no limitation	Restriction on Free account in the form of filling 15 other surveys prior to creating own survey; unlimited for other paid accounts
# of Responses	Unlimited	Unlimited	Free = 100 responses 25 € = 1,000 responses if more 0.10 € per additional response; otherwise unlimited	10,000 responses for Free account / per one survey; max. of 50,000 responses for paid accounts / per one survey
Survey customization	Limited; use of templates that cannot be customized, no web link customization	Allows many options for customization e.g. welcome/end message; full text customization; HTML editor; for experienced users	User friendly interface for survey customization with 51 survey templates; own branding of survey + custom redirect upon survey completion and custom URL	Allows very customized layout of own survey for paid accounts; possibility to get a programmer to create the survey in the system
Question types	Limited; only basic question types such as Matrix of Choices, Multiple Choice, Text Box	28 different question types	15 types of questions; sophisticated question logic options	24 types of questions; possibility to import questions from Word
Survey distribution	Only a default link from Google, no option to customize the web link	Web link, email invitations	Web link, email, via Twitter, sharing on Facebook, website pop-up, embedded survey to own website, buy a target audience option	Public X Non - public distribution; web link, IFRAME, paid respondent pool option
Graphing/Data export capabilities	Supports graphs, diagrams, tables; responses can be downloaded into Excel Format, CSV Format, PDF Format	Allows basic data filtering and simple looking graphs; Results can be exported to Excel Format, CSV Format, MS Word file	Transfer responses into custom charts, filter & cross tabulators, text analysis; provide an user with real time results; export data into SPSS, EXCEL, Spreadsheets, PDF, CSV, XML, HTML Format	Various graphs; download of data to XLS, XLSX, CSV, XHTML, PDF
Data Storage	Data is stored on Google's own servers	No data storage guarantee; it is advised to export data regularly	Data is stored on their own servers within secured data centres; regular encrypted backups	Survey results are held indefinitely
Customer Support	No live support	Support from Lime Survey community; forums, chats, logs	24x7 email support for all accounts; for paid account there is response in 2 hour or less; for 800 € account there is phone support	Email and phone support only for paid account

Google Docs (www.docs.google.com) is a user friendly tool for creating rather simple questionnaires. The advantage is the wide accessibility to users of Google's services. It is completely free of charge. Another advantage is the unlimited number of questions and vast possibilities to create many questionnaires as long as there is available space on a user's Gmail account. One of the main disadvantages is that it does not provide as many battery questions as may be required for any professional surveys. Unfortunately, it is also missing any question logic features that allow respondents to skip between questions. The customization option of the design of a questionnaire is not wide. Any data collected can be exported for Excel. There is no advanced option for exporting data into statistical software such as SPSS.

LimeSurvey.org (www.limesurvey.org) is a free and open source utility questionnaire without any warranty. Based on copyrights, this tool can be used by a vast number of institutions such as universities or individuals. The system is quite sophisticated and provides a wide range of battery questions and a wide range of customizable text as well as lay out customization. On one hand, the system seems to be very sophisticated with advanced function for export of data. On the other hand, the user interface is rather unintuitive and it could take more time to get use to it.

SurveyMonkey.com (www.surveymonkey.com) is a licensed survey tool that offers an option of a free account with some restrictions regarding available features such as an advanced customization. It is a very intuitive and one of the most popular survey tools for individual researchers or research agencies. The tool provides a user with ample opportunity customization of a questionnaire, own questionnaire branding e.g. a company logo. Among all features there is the important Question and Page logic function. Such a skip logic feature allows to direct respondents via different paths in a survey. This feature was very valuable when designing an online questionnaire "TOP Employers". On top of that the survey tool offers a helpful feature called Question and Answer piping. This feature automatically includes the answer choice as a part of the question. However, this feature was not implemented in the survey "TOP Employers". The distribution of a questionnaire to the respondents can be done via individually created data collecting e.g. via a web link, via Facebook, via Email, via Pop-Up window or embed into a website. The

tool also provides a database of respondents with the possibility of approaching a user target group. This feature is only included in an extra paid price plan. The tool provides the ability to track responses and respondents. The system is well developed and data is properly protected.

VyplnTo.cz (www.vyplnto.cz) is a Czech survey tool. It offers several pricing options as well as a free plan. Unfortunately, the free account can only be accessed prior to filling out at least 15 questionnaires from the tool's own public database of questionnaires. The tool offers similar features as the SurveyMonkey.com for reasonable prices. Unfortunately, the graphics of the interface can make navigation in the system rather inefficient. On the other hand, the provider offers paid assistance for transferring paper questionnaires into an online form. Likewise to SurveyMonkey.com, VyplnTo.cz offers the opportunity to buy the target group of respondents.

The reasons for selecting SurveyMonkey.com as the survey tool for the survey "TOP Employers" are:

- SurveyMonkey.com, in comparison to Google Docs uses more sophisticated filtering function and data collection. With a large number of respondents, the data filtering function can be applied according to various criteria within the system, e.g. only respondents from selected years of study and selected university
- SurveyMonkey.com compared to LimeSurvey.org offers certified backup of all data. The data is encrypted and protected on SurveyMonkey servers. Some of the data collected had a personal character. Therefore, it is important for the ASA as well as for the author of the survey to protect the personal data of all respondents
- VyplnTo.cz is not as renowned of a tool as SurveyMonkey.com and would not have to be able to cope with the onslaught of users once the survey starts. There is also lack of information about any server security services. Therefore, it would be appropriate to be concerned about the protection of personal data of respondents.
- The disadvantage of the survey tool SurveyMonkey.com could be seen in its slightly higher cost of the license compared to one of these four reviewed survey tools. The SurveyMonkey.com GOLD price plan was purchased for € 300 per year, € 1 = CZK 25.145 current as of November 2, 2011 (European Central Bank, 2011).

However, this negative criterion is counterbalanced when the cost of the licence spreads among 7,955 respondents. The result would give us a quite reasonable price of 0.95 CZK for a one respondent.

When choosing the appropriate tool for the realization of the survey it was also necessary to take into account the following criteria:

- Who was the executor/who will be using the survey tool interface
- How easy was it to use the survey tool

The more difficult the tool was to use, the more time the executor would have to spend on designing the questionnaire, the more expensive it would become for the ASA to pay for the survey as well as the executor.

4.1.3 TOP Employers - Questionnaire Structure and design

The “TOP Employers” questionnaire had the following structure:

- Introduction to the questionnaire
- Content – questions
- Ending

Introduction to the questionnaire

In the introduction to the questionnaire, the respondents were familiarized with the subject as well as the purpose of the survey “TOP Employers”.

The key reason for the respondents to participate in the survey “TOP Employers” was the possibility to express their opinion on the labour market in the Czech Republic. Their opinion would be communicated to their future employers.

At the beginning of the questionnaire the respondents were informed about an incentive for participating in the survey as well as the time it would take them to complete the questionnaire. The respondents were also informed that their answers are anonymous and the data was adequately protected. The respondents were informed that they could ask for the results of the survey.

Content – questions

Once the respondents started filling out the questionnaire they were provided with filtering questions such as: name of their home university, faculty and year of study.

Such filtering questions would be helpful in the processes of preparing any special data reports to reflect certain type of data/answers from students of, for example: the University of Economics in Prague → Faculty of Finance and Accounting → 4 or 5 year of study. A similar set of results will allow a deeper insight for those interested in specific data, such as clients of the corporate sector.

The crucial questions, which completion required concentration, were put in the middle of the questionnaire and at the end less serious issues were asked. Although, no less important when looking at the complete questionnaire.

The questionnaire “TOP Employers” consisted mainly of closed-ended questions with only one possible answer such as:

What is your expected gross monthly wage in upcoming employment after you graduate?

- Less than 15,000 CZK
- 15,001 – 17,500 CZK
- 17,501 – 20,000 CZK

Potentially conflicting questions were eliminated when piloting the survey in order not to distract the respondents from completing the whole survey.

The “TOP Employers” questionnaire was divided into nine areas:

- 1. Demographic data**
- 2. Language skills and study results**
- 3. Finance**
- 4. Source of job opportunities**
- 5. Social media approach**
- 6. Attraction**
- 7. Retention**
- 8. Mobility**
- 9. Criteria for being employer of choice**

Of course it was important to start the questionnaire with an opening page even though it was not exactly focused on questioning the respondents.

Opening page

In the beginning of the questionnaire “TOP Employers” the following points were included in order to:

- Politely ask the respondent to complete the questionnaire
- Introduce the content of the survey
- Indicate the importance of the respondent’s answers and the meaning of the questionnaire and to highlight the contribution of the respondent’s for correct completion of the survey
- Mention the approximate duration for completing the questionnaire
- Inform the respondent of anonymity and data protection
- Mention an incentive for participation in the survey
- Thank the respondents for their time they would spend filling the questionnaire

Demographic data

The data describing the distribution of the population for the purposes of the survey respondents “TOP Employers” were collected. This area of questions can play an important part for some employers. There were certain report parameters. The variables were: name of a University, faculty, year of study, gender.

Language skills and study results

The Czech labour market, especially for some employers, requires a high level of language proficiency and talented candidates. Therefore, this part of the survey can be important when generating a data analysis out of the results of the survey “TOP Employers”.

Finance

It can be very helpful information for an employer to know what salary the graduates wish to receive once they enter a job market. Therefore, this area concentrated on expected as well as acceptable/not acceptable salary range for graduates.

Source of job opportunities

Graduates are used to searching for jobs using various communication channels. For this reason, it is necessary for employers to know which communication channels to use in order to approach their potential job candidates. This fundamental knowledge of communication channels allow employers to set up a successful employer branding strategy.

Social media approach

The social media approach in employing is relatively new but rapid, real-time world phenomena on how to attract potential talents. This leads to a new strategy where employing companies are building organized efforts towards creating their positive image on the social network.

Companies engage with the cohort so that by the time there is a job opening, the candidates have some basic knowledge about the company. Therefore one of our questions of the survey “TOP Employers” asked the respondents whether they would like to contact their future employer via social media such as Facebook.com, LinkedIn.com, Youtube.com, Twitter.com etc.

Attraction

Talented graduates are always in high demand, no matter what the economic conditions are. In a difficult climate or tricky operating conditions, it takes a lot of

commitment and effort from organisations to convey their employer proposition to prospective new business leaders and functional specialists.

Therefore, there are several questions regarding this topic in the survey “TOP Employers” such as:

What activities organised by student organisations would you be interested in and would you be keen to visit? (You can choose multiple options)

This type of question should indicate to employers what events to concentrate on in order to attract future employees.

Retention

For many companies employee retention is the key challenge of these days in order to maintain the long-term health and success of their business. So the survey “TOP Employers” asks the question about the average time that the graduates would like to stay with their first employer.

Mobility

Other areas of the survey are mobility and willingness to commute to work. The survey “TOP Employers” asks the respondents whether they would be willing to relocate to another city in the Czech Republic for an interesting job offer or what the willingness is to spend part of their future career abroad.

Criteria for being an employer of choice

Being the attractive employer just sounds good. But it can help with recruiting talented graduates. In the last section of the survey “TOP Employers” the respondents evaluates these areas:

- Remuneration & Advancement opportunities
- Reputation and image
- Job characteristics
- People & Culture

Remuneration & Advancement opportunities

The evaluation of this area concentrates on the monetary compensation and other benefits, now and in the future:

- Clear path for advancement
- Competitive base salary
- Competitive benefits
- Good possibilities for rapid promotion
- Good prospects for high future earnings
- Good reference for future career
- Leadership opportunities
- Overtime pay/compensation
- Performance-related bonus
- Sponsorship of future education

Reputation and image

In this area the respondents were asked to evaluate the attributes of an employer as an organization that they would like to work for. The following attributes were:

- Attractive/exciting products and services
- Fast-growing or entrepreneurial
- Financial strength
- Good reputation
- High ethical standards
- High level of Corporate Social Responsibility
- Innovative products and services
- Inspiring top management
- Market success
- Prestige

Job characteristics

One of many characteristics of the attractive employer is the content and demands of the job, including the learning opportunities provided by an employer, so the respondents could evaluate these attributes:

- A variety of assignments
- An attractive geographic location
- Challenging work
- Control over my working hours
- Flexible working conditions
- High level of responsibility
- Opportunities for international travel
- Opportunities for relocation abroad
- Professional training and development
- Secure employment

People & Culture

For any company it can be useful to know how the respondents perceive for example the importance of a leadership style or working environment.

To find out such answers the respondents are asked to rank of the following set of criterions at the scale of 1 – 3 (1. being as the most important, 3. being the least important):

- Has a culture that is accepting towards minorities
- Has a culture that respects my individuality
- Has a culture that supports equality between the sexes
- Has leaders who will support my development
- Offers a comfortable physical work environment
- Offers a creative and dynamic work environment
- Offers a friendly work environment
- Offers interaction with international clients and colleagues
- Recruits only the best talent
- Will enable me to have good work/life balance

Ending

At the end of the survey “TOP Employers,” respondents can choose their preferable company and employer that they would like to work for after their graduation. There are ten categories of companies divided according to industries such as:

- Automotive and engineering industry
- Information technology

Following these ten categories, respondents can leave their e-mail address in order to enter the draw.

Before the respondents leave the online survey, it is important to thank them for participating in the survey.

The questionnaire “TOP Employers” is not part of the bachelor thesis as the ASA does not allow the use of the questionnaire other than for the surveying purposes.

4.2 Paper versus Online survey

To fulfil the goal of this thesis an inquiry was made to a professional research agency operating on the Czech market to find out how much it would cost to realize the survey “TOP Employers” in a paper-based form which would be a part of Face-to-Face method with the same target group and the same number of respondents as the initial survey “TOP Employers”.

Available data from the research agency helped to prove the hypotheses of these bachelor theses:

1) Using online survey tool is a more effective and less expensive survey method for the ASA than paper based survey.

2) An online survey tool for the purpose of the survey “TOP Employers” is a more effective solution in comparison to paper-based form

The name of the research agency is not provided intentionally in this thesis because the agency does not wish to be named.

4.2.1 Paper – based survey

The calculation of the research agency can be divided into the five general stages that are necessary to go through in order to successfully develop and complete the survey.

Calculation of the cost of realization of the survey “TOP Employers” by the research agency is based on:

- Thirty two close-ended questions. These are the same questions as for the online version of the questionnaire
- Length of the interview to be approximately 15 minutes
- 7,955 filled in paper-based questionnaires
- Realization period: from the start - 6 weeks to deliver the data

Survey design and planning

This stage of the survey process is important to define as it helps smooth flow of the survey.

The research agency costs according to the offer within this stage of the survey are as following:

- **10,000 CZK** project management
- **5,000 CZK** for graphical corrections prior to printing the questionnaire
- **30,000 CZK** for printing the questionnaire – required number of paper questionnaires = 7,955. The cost of one questionnaire in paper base form = 3.77 CZK. The cost of any extra paper questionnaire that would have to be printed would go on behalf of the research agency, therefore the exact number of spare questionnaires is not important.

In the case of a paper-based approach this stage would cost **45,000 CZK in total and would take 2 weeks altogether with the next stage.**

Pretesting + Final survey design and planning

This stage allows testing of the survey instrument in as similar conditions as possible. Outcomes of such pretesting provides the researcher with the ability to spot any glitches in wording of questions, lack of comprehensibility or anything that could have negative impact on data collection.

As the questionnaire “TOP Employers” would be delivered to the research agency by the ASA, there are no costs within this stage of the survey relating to designing questions and answers.

Data collection

This stage of the paper-based survey is the most expensive part mainly due to the number of required interviews and the price for one filled in paper-based questionnaire. The most costly items are:

- **437,525 CZK** for remuneration of interviewers – an interviewer gets paid 55 CZK for an interview
- **35,000 CZK** for organization of field data collection – there would be supervisors in contact with interviewers to resolve any problems encountered during the field survey for example illness of an interviewer, etc.
- **25,000 CZK** for travel and postage
- **20,000 CZK** for control of interviewers – any interviews are ought to be carried out by trained permanent staff members of the research agency, but the control makes sure that as many interviews as possible are carried out properly limiting any bias and the deadline for delivering the data is reached.

In the case of a paper-based approach this stage would cost **517,525 CZK in total and would take 3 weeks.**

Processing and Analysis of Data

Once the process of collecting data is finished, the data has to be processed including editing, coding and tabulation of collected data. The calculations of the cost does not include further analysis of data. The main costs in this stage are:

- **75,000 CZK** for uploading data into SPSS statistical software
- **25,000 CZK** for preparing the data file, work with the data

In the case of a paper-based approach this stage would cost **100,000 CZK in total and would take 1 week to obtain the data.**

If the ASA decided to use the services of the professional research agency, it would cost **662,525 CZK** in total. For a non-profit organization, such an amount of money cannot be found in their budget.

To approach one respondent using paper-based form based on a Face-to-Face interview would cost **83 CZK** based on 7,955 respondents.

There is no VAT included in any of the prices mentioned.

4.2.2 Online Survey

The following costs of the various stages of the survey “TOP Employers” are based on the author’s previous experience when creating the survey “TOP Employers”. It is calculated with the author’s payment received of 200 CZK per hour for working on preparation and realization of the survey “TOP Employers”.

The total period of data collection was from November 21, 2011 - December 14, 2011

Survey design and planning

This part of the survey was carried out with the following costs:

- **5,400 CZK** Formulation of questions and answers - within this part there were created nine categories with thirty two questions. The original text of the questionnaire contained thirty eight questions. Six questions were excluded after the implementation of the pilot survey. Time spent on preparation of this point = 27 hours x 200 CZK / hour

- **600 CZK** Recommendation of the Online Survey Tool – confirmation of required functions of the survey tool was done. Time spent on preparation of this point = 3 hours x 200 CZK / hour
- **7,544 CZK** Purchase of the online tool - SurveyMonkey.com GOLD price plan was purchased for € 300 per year (€ 1 = CZK 25.145 current as of November 2, 2011 according to European Central Bank Exchange Rate)
- **1,400 CZK** Creation of the questionnaire within the environment of SurveyMonkey.com - at this stage the already defined questions and answers were converted using SurveyMonkey.com user interface and other functions were set up such as the creation and activation of alarm notification in case of a respondents failure to answer, proper layout of questions and answers on a page, creating header of the online questionnaire, linkage of questions using Question and Page skip logic function. Time spent on preparation = 7 hours x 200 CZK / hour
- **800 CZK** Defining distribution channels for the online questionnaire - this stage was mainly related to the preparation of distribution channels, through which the online questionnaire “TOP Employers” was spread through the E-mail database of the ASA or e-mail database of partner organizations of the ASA. Time spent on preparation = 4 hours x 200 CZK / hour

In case of the online approach, **15,744 CZK** was spent on this stage of the survey “TOP Employers” **and 41 hours spent on preparing this stage.**

Pretesting

Before collecting the data, it was necessary to test the online questionnaire “TOP Employers” using a special web-link. The link was sent via email to five randomly selected colleagues and five university students to spot any glitches in the wording of the questions, lack of comprehensibility or anything that could have negative impact on data collection.

This part of the survey was carried out with the following costs:

- **800 CZK** Sending the web link and collection of the following comments on the questionnaire - Time spent on preparing this point = 4 hours x 200 CZK / hour

In the case of the online approach, **800 CZK** was spent on the “Pretesting stage” of the survey “TOP Employers” **and 4 hours spent on preparing this stage.**

Final survey design and planning

Based on the previous stage, there were six questions eliminated as they took too much time to complete. Therefore the final design of the online questionnaire had to be edited and reduced down to thirty two questions.

This part of the survey was carried out with the following costs:

- **1,200 CZK** Collection of the following comments on the questionnaire and changes in the questionnaire. Time spent on preparation = 6 hours x 200 CZK / hour

In the case of the online approach, **1,200 CZK** was spent on this stage of the survey “TOP Employers” **and 6 hours spent on preparing this stage.**

Data collection

Before sending the online questionnaire “TOP Employers” via the email database, there had to be a new collector created.

This part of the survey was carried out with the following costs:

- **100 CZK** Creation of the new data collector and editing a web-link that would be sent to respondents – such settings allowed multiple responses per compute, to set up restrictions on already submitted questionnaires, to set a "Thank You" page, and to set the Cutoff Date & Time. Time spent on preparation = 0.5 hours x 200 CZK / hour
- **2,400 CZK** Sending the e-mail with the web-link – sending of the email with a request to complete the questionnaire was carried out gradually. No special application was used for sending a bulk of emails. Number of sent e-mails were 21,000 between November 21, 2011 and December 14, 2011. Time spent on preparation = 12 hours x 200 CZK / hour.

In the case of the online approach, **2,500 CZK** was spent on this stage of the survey “TOP Employers” **and 12.5 hours spent on preparing this stage.**

Processing and Analysis of Data

One of the advantages of online survey tools are the direct data collection. SurveyMonkey.com provides an analytical part where it is possible to generate various graphs or tables without the need to export collected data to other analytical tools.

This part of the survey was carried out with the following costs:

- **400 CZK** Creating a report with some general data results for a press conference – creating a report straight from the analytical part of the SurveyMonkey.com in PDF format, application of filters such as university, age, gender, language skills. Time spent in preparation = 2 hours x 200 CZK / hour
- **100 CZK** Data Backup – back up of all data collected that can be opened with a spreadsheet software or SPSS analytical software. Time spent on preparation = 0.5 hours x 200 CZK / hour
- **800 CZK** Generation of data for internal purposes of the ASA - Time spent on preparation = 4 hours x 200 CZK / hour
- **16,000 CZK** Generation of data for clients and analysis building - Time spent on preparation = 80 hours x 200 CZK / hour

In the case of the online approach, **17,300 CZK** was spent on this stage of the survey “TOP Employers” **and 86.5 hours spent on preparing this stage.**

4.2.3 Results = Comparison online and paper survey

It is important to mention that the practical part of the bachelor thesis evaluate the effectiveness of an online survey in terms of costs, but not the quality of the data and an issue of validity of the responses.

The ASA is a non-profit organization and it needs to watch its costs. Therefore, the ASA cannot spend much money on expensive methods of surveying.

Table 2. Comparison of costs and time

	Paper-based survey costs		Online survey costs	
	CZK	No of hours	CZK	No of hours
1. Survey design and planning	45,000	According to the agency offer this approach should take 6 weeks. Assuming 8 working hours per day, 5 days a week.	15,744	41
2. Pretesting + final design and planning	0		2,000	10
3. Data collection	517,525		2,500	12.5
4. Processing and analysis of data	100,000		17,300	86.5
Total	662,525	240	37,544	150

Source: own calculations

In the table above the author of the bachelor thesis provides the results of his work in terms of comparing how much the potential cost would be if the ASA had the survey done by the professional research agency and how much the actual costs were by doing the survey using SurveyMonkey.com in 2011/2012.

In the case of proving or disproving the hypothesis whether using an online survey tool is a more effective and a less expensive survey method for the ASA than paper-based survey, **the difference of 624,981 CZK** shows that for the ASA it is less expensive to use the online survey tool SurveyMonkey.com rather than the services of the research agency.

The online survey compared to a paper-based method shows the greatest difference in the section “Data collection”. One of the reasons explaining such high costs can be the fact the there would have to be many interviewers to carry out the paper-based method via Face-to-Face interview which is multiplied by the number of required respondents of 7,955.

The difference between the compared approaches does not show such a big proof in the case of the first stage “Survey Design” and planning. As the questionnaire “TOP Employers” was once created, the agency would not have to design questions and answers over again. But within the difference of those compared amounts, a reader can see that large sum of money can be saved by not printing any paper-based questionnaires. In the

case of the paper-based method it can be said that the ASA does not have such available financial sources to cover the cost of the research agency.

Because effectiveness can be also measured by considering time, the results from Table 2. displays that approaching 7,955 respondents is less time consuming for the ASA when the online survey tool is implemented. Such amount of time saved from not doing the paper-based approach can be used for other fundraising activities for the ASA.

Therefore, using an online survey tool is a more effective and less expensive survey method for the ASA than paper based survey.

In the literature part of this bachelor thesis, it was mentioned that surveys have several stakeholders. One of the stakeholders of the survey “TOP Employers” are companies, especially Human Resources departments of those companies, that do care about setting up strategies based on as much available information about the target group of university students as possible, but for reasonable prices.

To prove the second stated hypothesis that an online survey tool for the purpose of the survey “TOP Employers” is a more effective solution in comparison to paper-based form, it is important to mention the total amount of money earned from consulting the results of the survey “TOP Employers” with companies.

For the discretion of the ASA, the following figures do not correspondent exactly to the prices and number of sold analysis of the survey “TOP Employers”. But the figures are close to the real prices and should be considered as demonstrative.

Table 3. Total sum earned in CZK from selling the analyses

	Price of an analysis sold in CZK - online survey
1. company	69,000
2. company	69,000
3. company	39,000
4. company	29,000
5. company	9,000
6. company	9,000
Total sum earned in CZK	224,000

Source: own calculations

In the case of realization the “TOP Employers” using the online survey tool SurveyMonkey.com and assuming that there were six companies willing to buy various analyses of the data, the ASA earned total amount of 224,000 CZK.

Table 4. Revenue when an online survey tool was used

Total sum earned in CZK (income)	224,000
Cost of an online survey in CZK	37,544
Revenue in CZK	186,456

Source: own calculations

The table above shows that the ASA had an income of 224,000 CZK from selling the data analyses to several companies. The ASA’s revenue was 186,456 CZK without VAT when the online survey tool had been used.

Table 5. Required income in CZK to cover the research agency costs

Cost of a paper-based survey in CZK	662 525
Revenue from the online version in CZK	186,456
Required income in CZK	848,981

Source: own calculations

If the “TOP Employers” was done according to the research agency’s calculation and sold ideally to six companies with the same revenue for the ASA, the required income

would have to increase to 848,981 CZK, thus the prices of the data analysis would have to increase 3.79 times.

According to the experience of the author of this thesis, no company could afford to spend such an amount of money.

Therefore, the hypothesis that an online survey tool for the purpose of the survey “TOP Employers” is a more effective solution in comparison to paper-based form was confirmed.

5. Conclusion

The topic of the bachelor thesis “Online Survey Tools: Application of an online survey tool in a non-profit organization” was chosen due to the interests of the author of the bachelor thesis in finding what survey approach would be more effective for the ASA and the survey “TOP Employers” in terms of costs and time. Such interest was driven mainly due to the limited sources of the non-profit organization.

The main goal of the bachelor thesis was to prove or disprove the stated hypothesis:

Hypothesis 1

Using an online survey tool is a more effective and less expensive survey method for the ASA than paper based survey.

Hypothesis 2

An online survey tool for the purpose of the survey “TOP Employers” is a more effective solution in comparison to the paper-based form.

The both hypotheses have been proved. The hypotheses are valid in relation to the purposes of the ASA and the survey “TOP Employers”. The author of the thesis acknowledges that for other entities, researchers or other purposes, the use of an online survey tool does not necessarily have to prove the same results. Also online survey tools may be suitable for use in HR surveys, as in the case of the survey “TOP Employers”. But in other areas (e.g., marketing research and product tasting) there may need to be different approaches for data collection.

The ASA is a non-profit organization and it cannot afford to spend that much money on expensive surveying such as the research agency method. The online survey approach thus allows the ASA to keep the costs and time of the realization of the survey at the minimum.

As part of the Conclusion it is important to mention that it would be impossible for the ASA to realise the survey and sell the data analyses in the case of doing the survey under the research agency calculations.

Supposing that the ASA have had the survey done by the research agency, the prices of the data analyses sold to companies would have to be 3.79 times higher to generate the same amount of revenue.

The thesis also demonstrates how an online survey tool can become a source of funding for the ASA that can be returned back and used for future operations of non-profit organizations. The contribution of the bachelor thesis is that the ASA does not have to spend time in future analysing whether it will do the “TOP Employers” in online or paper-based form.

6. References

1. BHASKARAN, Vivek, LECLAIRE, Jennifer. *Online surveys for dummies*. Hoboken, N.J.: Wiley Pub., 2010, xvi, 342 p. --For dummies. ISBN 04-705-2796-X.
2. BRACE, Ian. *Questionnaire design: how to plan, structure, and write survey material for effective market research*. Sterling, VA: Kogan Page, 2004, xii, 289 p. ISBN 07-494-4181-X.
3. CZAJA, Ronald, BLAIR, Johnny. *Designing surveys a guide to decisions and procedures*. 2nd ed. Thousand Oaks, Calif: Pine Forge, 2005. ISBN 978-141-2983-877.
4. FINK, Arlene. *The survey kit*. 2nd ed. Thousand Oaks, Calif.: Sage Publications, c2003, 10 v. ISBN 0761925104.
5. FRIČ, Pavol, DEVEROVÁ, Lenka, PAJAS, Petr, ŠILHÁNOVÁ, Hana. *Defining the Non-profit Sector: The Czech Republic*. Working Papers of the Johns Hopkins Comparative Non-profit Sector Project, no. 27, edited by Lester M. Salamon and Helmut K. Anheier. Baltimore: The Johns Hopkins Institute for Policy Studies, 1998.
6. KOTHARI, C. *Research methodology: methods*. 2nd rev. ed. New Delhi: New Age International (P) Ltd., Publishers, c2004, xvi, 401 p. ISBN 978-81-224-2488-1.
7. RŮŽIČKOVÁ, Růžena. *Neziskové organizace: vznik, účetnictví, daně*. 8th ed. Olomouc: ANAG, 2006, sv. Účetnictví, daně. ISBN 80-7263-343-0.
8. SALAMON, Lester M., ANHEIER, Helmut K. *The international classification of non-profit organizations: ICNPO-revision 1, 1996*. Baltimore: The Johns Hopkins University. Institute for policy studies, 1996, 23 p. Working papers of the Johns Hopkins comparative non-profit sector project, Number 19. ISBN 18-863-3323-8.
9. SALAMON, Lester M., ANHEIER, Helmut K. *Defining the non-profit sector: a cross-national analysis*. New York: Manchester University Press, 1997, xiii, 526 p. Working papers of the Johns Hopkins comparative non-profit sector project, Number 19. ISBN 07-190-4902-4.
10. SHAUGHNESSY, John J, ZECHMEISTER Eugene B, ZECHMEISTER Jeanne S. *Research methods in psychology*. 9th ed. New York, NY: McGraw-Hill, 2011, xv, 488 p. ISBN 00-780-3518-X.
11. ŠKARABELOVÁ, Simona et al. *Když se řekne nezisková organizace: příručka pro zastupitele krajů, měst a obcí*. 1st ed. Brno: Masarykova univerzita, 2002, 129 p. ISBN 80-210-3031-3.

12. ŠKARABELOVÁ, Simona. *Definice neziskového sektoru: sborník příspěvků z internetové diskuse CVNS*. Brno: Centrum pro výzkum neziskového sektoru, 2005, 52 p. ISBN 80-239-4057-0.

13. JUPP, Victor. *The Sage dictionary of social research methods*. Thousand Oaks, Calif.: SAGE Publications, 2006, xii, 335 p. ISBN 07-619-6298-0.

Internet Sources:

14. ADOLPHUS, Margaret. The importance of pretesting. *Margaret Adolphus's Home Page* [online]. 2013 [cit. 2013-03-08]. Available from:

<<http://www.adolphus.me.uk/emx/surveys/pretesting.htm#0>>

15. BRANCATO, G. et al. Handbook of Recommended Practices on Questionnaire Development and Testing in the European Statistical System. In: *Eurostat Home* [online]. 2006 [cit. 2013-03-08]. Available from:

<http://epp.eurostat.ec.europa.eu/portal/page/portal/research_methodology/documents/Handbook_questionnaire_development_2006.pdf>

16. BRHLÍKOVÁ, Petra. CERGEI. The non-profit sector in the Czech Republic [online]. 2004. [cit. 2013-03-03]. Available from:

<http://is.muni.cz/el/1456/jaro2005/PVTRPS/Nonprofit_by_Brhlikova.pdf>

17. BROPHY, Sinead et al. Questionnaires. SAGE PUBLICATIONS LTD. *Small Scale Evaluation in Health: Self-Learning Courses* [online]. 2008 [cit. 2013-03-08].

Available from:

<http://www.uk.sagepub.com/brophy/Questionnaires_HTML/index.htm>

18. EUROPEAN CENTRAL BANK. *Exchange rate* [online]. 2011 [cit. 2013-03-03]. Available from:

<<http://www.ecb.int/stats/exchange/eurofxref/html/eurofxref-graph-czk.en.html>>

19. HARVEY, Lee. Effectiveness. *Analytic Quality Glossary* [online]. 2012 [cit. 2013-03-08]. Available from:

<<http://www.qualityresearchinternational.com/glossary/effectiveness.htm>>

20. MINISTERSTVO VNITRA. *Portál veřejné správy: No. 83/1990, Coll. of March 27, 1990* [online]. 2013 [cit. 2013-02-07]. Available from:

<<http://portal.gov.cz/zakon/83/1990>>

21. OXFORD UNIVERSITY PRESS. Definition of research in Oxford Dictionaries. *Oxford Dictionaries Online* [online]. 2013 [cit. 2013-03-08]. Available from:
<<http://oxforddictionaries.com/definition/english/research>>
22. SPSS: Data Collection: The hows and whys of survey research - Getting the most value through an effective survey research process. *IBM* [online]. 2013 [cit. 2013-03-07]. Available from:
<<http://public.dhe.ibm.com/common/ssi/ecm/en/ytw03111usen/YTW03111USEN.PDF>>
23. TROCHIM, William M.K. Types Of Questions. *Social Research Methods* [online]. 2006 [cit. 2013-03-08]. Available from:
<<http://www.socialresearchmethods.net/kb/questype.php>>
24. ÚSTAV PRO EKOPOLITIKU, O. P. S. Výkladový slovník. *Výkladový slovník* [online]. 2007 [cit. 2013-03-08]. Available from:
<<http://slovník.ekopolitika.cz/e.shtml#efektivita>>
25. Vyzkumy.cz. *Data Collect s.r.o.* [online]. 2010 [cit. 2013-03-07]. Available from:
<<http://www.vyzkumy.cz/>>

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