

# Conducting Survey in Non-English Speaking Country: The Methodology Concerns

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## Abstract

This paper demonstrates how to conduct survey in non-English Speaking country from the methodology perspective. Specifically, this paper discusses the research design and justifies why fixed design and quantitative methods, in terms of survey have been used to collect data. Moreover, the process of the translation-back-translation of the survey is presented. The finally part concerns the issues about instrument refinement.

**Keywords:** Survey, Research Design, Translation-back-translation

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## 1. Research Design

The research design is “concerned with turning research questions into projects” (Robson, 2002, p.80), focusing on the relationship between research questions, strategy and methods. The relationship between these three issues needs to be handled in a consistent and systematic manner. According to Robson (2002), the general principle is that the research method and strategy must be appropriate for the research questions to be answered. It is appropriate to follow Robson’s (2002) principle to design the research in a way that fits the research method and strategy to the research questions.

### 1.1 Fixed Design Strategy

According to Robson (2002, p.4), a fixed design means that “a very substantial amount of pre-specification about what you are going to do, and how you are going to do it, should take place before you get into the main part of the research study.” He also classifies fixed and flexible designs as alternative classification criteria of research strategies to quantitative and qualitative research. A fixed design is theory-driven, which means that a conceptual model should be developed in advance of the research process. Accordingly, researchers should have a deep conceptual understanding before undertaking the fieldwork. By contrast, flexible design involves less pre-specification, in that it evolves, develops and unfolds as the research proceeds

Therefore, in order to test the conceptual model developed based upon an extensive review of the literature, a fixed design should be employed. The conceptual model can be used to guide the data collection, whereby the data is used in turn to examine the relationships presented in the theoretical model.

### 1.2 Quantitative Method

According to Neuman (2006, p.63), a quantitative method can be described as “an organized method for combining deductive logic with precise empirical observations of individual behavior in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity”. Applying a quantitative method can provide statistical evidence concerning the strengths and directions of relationships among constructs (Amaratunga et al., 2002). Hence, the measurement of constructs is a significant and integral aspect of quantitative research (Cavana et al., 2001).

Moreover, following the principle from Robson (2002) and Punch (2013), the research method used to conduct the research needs to be in line with research questions that are linked to the research strategy and suitable for data collection. As demonstrated previously, the research questions in this study explore the relationship between social capital and innovation with the mediating role of social decision-making constraints and the moderating effects of culture. A quantitative method should be used in the research to empirically investigate causal relationships in the conceptual model.

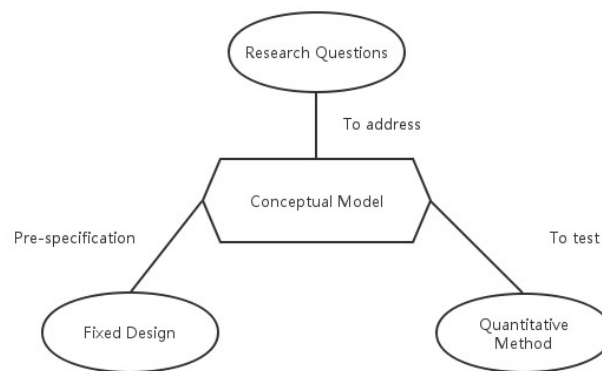


Figure 1. Framework for research design

The framework for the research design is presented in Figure 4.1. The conceptual model can be viewed as an intermediary, linking the research question, fixed design (research strategy) and quantitative method (research method). In order to address the research question, this study adopts a fixed design as the research strategy to develop a conceptual model as the pre-specification before the fieldwork, and then employs a quantitative method to collect data to empirically test the conceptual model.

## 2. Survey as a data collection method

Van Maanen et al. (2007) demonstrate that theory and method are interrelated. They also note that, although this view is widely held, the relationship is complicated and occasionally controversial across various communities of organizational researchers.

Edmondson and McManus (2007) label the relationship between theory and method as fit. They provide recommendations for the appropriate methods when the theoretical development of a research area is in the mature stage. Research in the mature stage “leads to further refinements within a growing body of interrelated theories” (Edmondson & McManus, 2007, p.1159). As Chapters 2 and 3 have demonstrated, the impact of social capital on innovation management is in the mature stage. According to Edmondson and McManus (2007), the appropriate methods of data collection for the mature stage are survey, systematically coded and quantified interviews/ observation and secondary data.

Secondary data is information or data that has already been collected and recorded by someone else for a different purpose (Blumberg et al., 2008). For example, the annual reports of public companies and information pertaining to financial markets are widely available and often used as secondary data. However, the main problem with using secondary data is that the data may not fit the requirement of the research questions.

As indicated previously, when the study adopts fixed design as the research strategy, surveys are one of the most commonly used methods of fixed design research (Robson, 2002). In particular, a self-administered survey can be defined as “a data collection technique in which the respondent reads the survey questions and records his or her own responses without the presence of a trained interviewer” (Hair et al., 2003, P.265). The self-administered survey has been used as the data collection method owing to the following advantages. Firstly, self-administered surveys are relatively cheap to produce and require less time than other data collection methods such as personal interviews. When the population requires a large number of respondents; therefore, a self-administered survey can be used to collect data more quickly and economically. Secondly, using self-administered surveys can reach participants who might otherwise be inaccessible. Thirdly, a self-administered survey can provide greater anonymity to the individual respondents.

Another alternative is the use of systematically coded and quantified interviews. The interview approach potentially could be used. It is, however, prohibitively time consuming and unnecessary, given that self-administered surveys can be used to collect the same data more quickly and with less expense.

## 3. Snowball sampling and key informant as sampling strategy

Snowball sampling is a non-probability sampling technique whereby the researcher starts by collecting data from one or more firms, and using these initial respondents as key informants to identify further respondents (Robson, 2002). Snowball sampling is useful when it is difficult to identify members of the population from which respondents are to be drawn. It is for this reason that snowball sampling has been suggested as one of the most effective methods to access hard to reach populations (Valdez & Kaplan, 1998). In particular, respondents’ social networks can be used to identify potential contacts and greatly expand the sample size (Cohen & Arieli, 2011). Moreover, snowball sampling is more likely to ensure a better response rate when gaining the initial collaboration from respondents (Lindlof & Taylor, 2010). In this sense, snowball sampling can be used to reach

a reasonable sample size.

In addition to snowball sampling, the key informant method is usually applied. The key informants are usually the top managers in each firm, who are considered the appropriate representative of the corresponding firm to provide data about their firms' performance. In addition, top manager can provide reliable information regarding the organizational characteristics and performance of their firms (Hung et al., 2011). Furthermore, top managers are best qualified and most competent to direct surveys to employees within the firm. Moreover, and serve the role of a guide to potential new firms for the researcher.

#### 4. Translation-back-translation

When publish paper in English language journal, the survey is usually developed in English. However, if the survey is implemented in non-English speaking country, it needs to be translated into native language. This procedure is important because cultural differences may result in non-equivalence, which can confound the results (Brislin, 1970; Salciuviene et al., 2005; Temple, 1997). Following the experience of prior research (e.g., Zhou et al., 2014), a translation-back-translation procedure needs to be undertaken.

As can be seen in Figure 2, the following is the steps to be conducted to translate. Firstly, the original English version was translated into native language and subsequently a back translation by at least two independent translators is commissioned. Both of the translators are best to be the native speakers with high level skill in English. Subsequently, the new and original English versions should be compared by a small group of English-speaking researchers to ensure conceptual equivalence. If two English versions were consistent in meaning, the translation can be seen successful; otherwise, the diverting items needed to be modified. Accordingly, such items needed to be back translated into English again and compared with the original English version to ensure consistency in meaning.

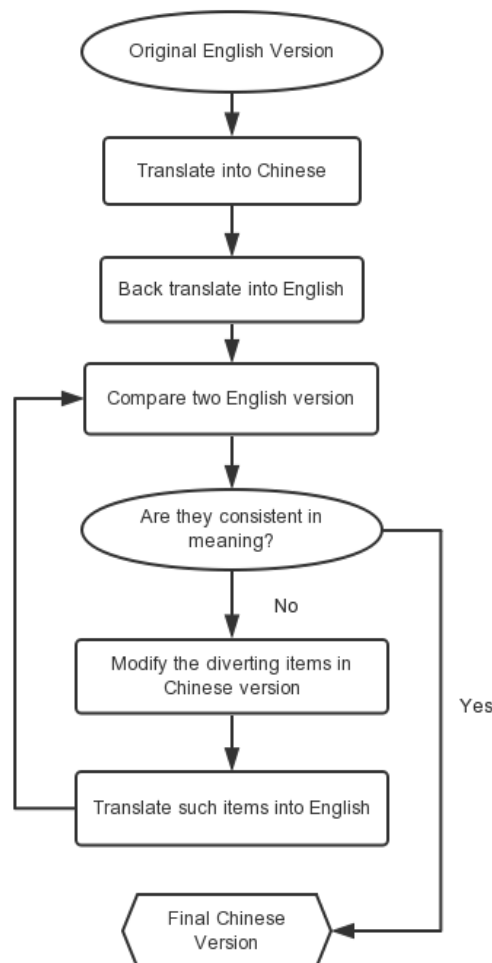


Figure 2. Process of translation-back-translation

## 5. Instrument refinement

According to Creswell (1994, p.121), face validity refers to “whether items appear to measure what the instrument purports to measure”, while content validity refers to “whether items measure the content they were intended to measure”. In order to ensure face validity and content validity, a pre-test needed to be conducted. If none of the measures are newly developed for this research, it is no necessary to carry out a large scale pre-test. Nevertheless, face-to-face pilot interviews should be conducted with expert academics and practitioners. The procedures used in the pre-test are as follows.

Prior to the translation-back-translation process, the English version of the survey should be reviewed by two academics regarding the feasibility of the survey. The academics need to be asked to evaluate the survey to assess the relevance of its conceptualizations, refine the wording of some questions and appraise the layout the survey, which helped the researcher to arrive at the final English version of the survey.

After the translation-back-translation process, the researchers should go to the country where they deliver the survey. The in-depth face to face interviews with at least two professors and practitioners should be conducted to gain their opinion on the comprehension, feasibility and relevance of items with respect to various constructs, as well as the modification of the wording of the native version of the survey.

## 6. Conclusion

This paper introduces the research methodology undertaken in testing the conceptual hypotheses. Firstly, a fixed design study has been recognized as the main research strategy. A quantitative method using a self-administered survey has been adopted to collect data about the underlying constructs proposed in the conceptual model. Specially, the current research has adopted snowball sampling and the key informant method has been adopted to collect data.

Given that the survey is developed in English but delivered in non-speaking English country. A translation-back-translation process should be followed to derive a consistent native version of the survey. A small scale pre-test should be conducted with academics and practitioners to ensure the face validity and content validity of the survey.

## References

- Amaratunga, D., Baldry, D., Sarshar, M., & Newton, R. (2002). Quantitative and qualitative research in the built environment: Application of “mixed” research approach. *Work Study*, 51(1), 17-31.
- Bradley, S. W., McMullen, J. S., Artz, K., & Simiyu, E. M. (2012). Capital is not enough: Innovation in developing economies. *Journal of management studies*, 49(4), 694-717.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of cross-cultural psychology*, 1(3), 185-216.
- Cavana, R., Delahaye, B. L., & Sekeran, U. (2001). *Applied business research: Qualitative and quantitative methods*: John Wiley & Sons Australia.
- Cohen, N., & Arieli, T. (2011). Field research in conflict environments: Methodological challenges and snowball sampling. *Journal of Peace Research*, 48(4), 423-435.
- Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, 32(4), 1246-1264.
- Hair, J. F., Bush, R. P., & Ortinau, D. J. (2003). *Marketing research: Within a changing information environment*: Richard d Irwin.
- Hung, R. Y. Y., Lien, B. Y.-H., Yang, B., Wu, C.-M., & Kuo, Y.-M. (2011). Impact of TQM and organizational learning on innovation performance in the high-tech industry. *International Business Review*, 20(2), 213-225.
- Lindlof, T. R., & Taylor, B. C. (2010). *Qualitative communication research methods*: Sage.
- Neuman, W. L. (2006). *Social research methods: Qualitative and quantitative approaches*.
- Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches*: Sage.
- Robson, C. (2002). *Real world research (Vol. 2)*: Blackwell publishers Oxford.
- Salciuviene, L., Auruskeviciene, V., & Lydeka, Z. (2005). An assessment of various approaches for cross-cultural consumer research. *Problems and Perspectives in Management*, 3(3), 147-159.
- Temple, B. (1997). Watch your tongue: Issues in translation and cross-cultural research. *Sociology-the Journal of the British Sociological Association*, 31(3), 607-618. Doi 10.1177/0038038597031003016
- Valdez, A., & Kaplan, C. D. (1998). Reducing selection bias in the use of focus groups to investigate hidden populations: The case of Mexican-American gang members from south Texas. *Drugs & Society*, 14(1-2), 209-224.
- Van Maanen, J., Sørensen, J. B., & Mitchell, T. R. (2007). The interplay between theory and method. *Academy of Management Review*, 32(4), 1145-1154.