6 Survey design and sample

During the previous chapter the partial least square approach was presented in detail as it is the statistical method for evaluation of the research model. Chapter 6.1 describes the final preparation of the survey, the aggregation of the sample data as well as the invitation and survey process. Subsequently, the data is evaluated with regard to missing data and potential biases (Chapter 6.2). Finally, prior to the data analysis itself, the required levels of significance for the following chapters are defined (Chapter 6.3).

6.1 Preparation of the data sample

6.1.1 Selection and design of data collection method

The survey will be conducted using the key-informant method. The key informant in this context is a person who is able to communicate information that can be generalized and which, specifically, does not communicate personal opinions or habits. In general, the key informant is selected based on his specific knowledge, characteristics or the position he holds inside an organization. In this study the managing director of the SME is selected as the key informant, based on the assumption that he oversees internal processes best and can make valid statements concerning the performance of the firm at the same time. More specifically he can comment on the management controls in place and the relationships between him and his subordinates. In case a firm is managed by two or more directors, the chief executive officer (CEO) was selected as the key informant.

Selecting the managing director also has two other distinguished advantages: first, it allows one to determine how management control operates and “why organizations do the things they do,” since, in order to know “why they perform the way they do, we must examine the people at the top.” As top-managers have a strong influence on the “conduct and outcomes of their firms,” and are the driver of management control implementation and design, they are the key informant to be addressed in order to understand controls and their outcomes. Secondly, management control practices potentially vary across different levels and functions of the firm. For example, the controls employed differ for a research engineer in the research & development, on the other hand, is difficult to be measured in terms of its outcomes or the research process itself. Hence, different corporate functions require different forms of control. For further discussion of different requirements of corporate functions refer to Ouchi

696 Different functions require different forms of control. E.g., sales employees are typically controlled by outcome measurement, as their performance can be measured by their revenues. Research & development, on the other hand, is difficult to be measured in terms of its outcomes or the research process itself. Hence, different corporate functions require different forms of control. For further discussion of different requirements of corporate functions refer to Ouchi
development department from the controls used for administrative employees. To level out these functional differences, this study assumes that the management control forms employed between the managing director and his direct subordinates are comparable. Although being responsible for different functions or countries, the subordinates of a managing director are expected to share common characteristics like personal responsibility for target achievement, interaction with other top-management members or leadership responsibilities. Consequently, the managing directors in this study are asked to provide information on the relationships with their direct subordinates.

Three different survey methodologies can be distinguished to gather data for empirical analysis: mail surveys, personal (telephone-based) interviews, and a web (online) survey. In a mail survey, the potential respondent receives a letter asking for his participation including a paper copy of the survey. During interviews, personal information is gathered either during an in-person interview or telephone interviews with the respondent. Finally, web surveys use the internet to present the survey and to collect the data. To select the most appropriate type of survey method, this study employs the framework of Weible/Wallace (1998) that proposes to not only consider data quality as a decision criterion but also the associated efficiency.697

The data quality of survey methods can be described by its coverage, measurement and non-response errors:698 coverage error refers to the “requirement of giving each member of a defined population a known chance of being surveyed.”699 In relation to the survey methodology, the key question is whether certain parts of the population are excluded from participation in the study. Mail surveys and phone interviews are expected to be exposed to a rather low level of coverage error, as nearly all enterprises in Germany can be expected to be equipped with either a mail address or a phone.700 Web surveys, on the other hand, are potentially affected, as the access and usage of the internet is required to participate. However, due to the innovative nature of surveyed organizations and the related exposure to innovative technologies the risk is considered rather small for this study. Two key reasons for a measurement error can be distinguished. First, respondents potentially misunderstand indicators if the indicators were not tested thoroughly. In contrast to interviews, during which a respondent could clarify his concerns, mail and web surveys do not allow this interaction due to their nature. Second, the data entry process itself is potentially subject to errors. As a result of improper transcription of interviews or accidental typing errors while entering paper-based survey data, the information analyzed may not be consistent with the actual data. Web