

## MISSING OUT: DOES MASTERS STUDENTS' PREFERENCE FOR SURVEYS PRODUCE SUB-OPTIMAL RESEARCH OUTCOMES?

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### Abstract

Little research has been done on the way Business Masters students carry out research for their dissertations. This exploratory study examined the way data is collected and analysed; it reviewed a small sample of dissertations and found them overwhelmingly skewed towards questionnaires (used by 91% of students) with archival (secondary) sources largely ignored. Further examination of the findings showed that almost half (45%) had poorly analysed data from questionnaires exhibiting problems such as 'voting on the facts' and 'crowdsourcing judgements'. By comparison, more experienced researchers showed a much lower dependence on questionnaires. To investigate causes for this, research methods texts were reviewed and generally found to have little focus on secondary data and often to show a negative attitude towards it.

The study concludes that there are issues in the way students gather data and that this can have adverse impacts on quality.

**Keywords:** business research methods, business masters, archival data, secondary data, questionnaires

## 1. Introduction

Business research methodology is an important subject and widely written about but very little research has been done on how students actually carry out such research and how their methodological choices impact the quality of research they do, both as students and in their subsequent careers. This study reviews dissertations from Business Masters students (MPA and MScs in Supply Chain Management and Project Management) at an African partner of a UK university. The authors' experience of supervising dissertations indicates a tendency for students to place excessive reliance on surveys and to ignore other data sources including archival data from within organisations.

The purpose of the study is to assess whether a full-scale investigation would be worthwhile covering these questions:

- What data do students collect and how do they collect it?
- Do these methodological choices have impacts on the quality of research?
- What lies behind the choices made?
- How might improvements be made?

A brief visit to a university library (or an online search) shows that there are hundreds, if not thousands, of textbooks available giving guidance on how to carry out business research, many specifically aimed at students. There are also specialised texts on particular aspects (questionnaires, interviewing, sampling, data analysis and so on) and even whole series aimed specifically at Business Masters students.

Given the wealth of guidance available, one might expect that there would also be a body of research on what such students actually do when carrying out their research projects. This does not appear to be the case. Whilst it would be wrong to say that no such research exists, it is certainly hard to find. A review of papers presented at the last five ECRM conferences (McLean, 2012, Ramos, 2013, Brown & Rich, 2014, Bezzina & Cassar, 2015, Benson & Filippaou, 2016) shows that, whilst around 15% of papers covered pedagogical topics, most were focussed on teaching aspects with only 5 (of 278) looking at students. None looked in any depth at the way research was designed or carried out by students and most were concerned with doctoral researchers.

So far, only one article, by Kangis & Carman (2001), on how Business Masters students do their research has come to light. Although not looking in depth at methods, it did find that 87% used questionnaires. This is in contrast to the choices made more experienced researchers: a review of the papers in the proceedings of ECRM 2015 (Marais & Pienaar-Marais, 2016) found that only 29% collected data by means of a questionnaire.

## 2. Data Collection Methods

The study reviewed all final submissions from the 2014/15 cohort at one partner institution in Africa but students whose work had been supervised by the authors were excluded because of the possible impact on the chosen research methods. This gave a sample of 32 dissertations. Of these, 25 (78%) researched within their own organisation which would be expected to have made access to sources of data easier.

The methods used for collecting data are shown below:

**Table 1:** Data collection methods (some used more than one method)

Method	Number	%
Questionnaire	29	91
Interview	9	28
Archival data (from the organisation)	3	9
Direct observation	2	6
Focus group	0	0

The 91% using questionnaires aligns closely with Kangis & Carman's (2001) figure of 87%. Twenty students used only questionnaires and just five (16%) did anything other than surveys (questionnaire and/or interview) to collect data. This despite the exponential growth in data across all organisations; IBM (2016) estimated that 2.5 quintillion ( $2.5 \times 10^{18}$ ) bytes of data are produced daily and that 90% of all the data in the world was produced in the previous two years. In addition to this online 'big data', organisations also generate reports, minutes and other records, electronically and in other media, which may be of research interest. Yet students seem largely to ignore this and opt for surveys.

### 3. Quality of Students' Findings

Further analysis of those using questionnaires aimed to determine the suitability of this as a method and the extent to which students' findings were consistent with questions asked and answers obtained.

Most findings were credible; however, a substantial proportion (13 students, 45%) included findings which were misleading and/or misinterpreted, as illustrated by the examples below:

**Table 2:** Quality of findings

	Question	Student's analysis	Commentary
1	Do you report for work on time?	"The results obtained from respondents showed that one hundred percent of the respondents reported for work on time."	Poor question badly analysed
2	Is there a registered list of preferred suppliers?	"The company does not have an approved suppliers list."	In fact, 2% (one person) answered yes: it could be that this was the only person in the sample who knew that there was such a list. In any case a more reliable answer would be obtained by searching for a copy of such a manual.
3	Does structure affect department performance?	"Seventy-six percent of the respondents indicated that the current structure has an effect on performance.... From the findings above it is evident that structure plays a critical role in the performance of department / directorate."	As well as being a poor question (the terminology needs explanation) this is asking for a judgment the respondents may not all have the capability to make, even if they did understand the question.
4	The frequency of stock outs for critical materials is high in the organization	"Y 63%, N 26%, Not sure 11%"	'High' is not defined and responses will, in any case, be subjective. Hard data should be available in the stores system.

The first example is a badly thought-out question which is unlikely to generate reliable answers but it is also a question where credible documentary evidence should be available. The second is a reasonable question; the problem lies in who is being asked. The procurement manager would know but a sales representative or a factory supervisor probably would not. The third example is, again, a poor question with insufficient explanation but, even if it were well explained it is unlikely that most respondents would have the basis either in evidence or in analytical capability to make such a judgement. The final one combines issues from all the previous three: lack of clarity (what is 'critical'?), seeking facts for which there should be hard evidence (how frequent are stock outs?) asking for a judgement (what frequency is 'high'?).

In addition to poor design, three recurring problems can be identified:

- **Asking the wrong people:** often only a few people in an organisation will have the knowledge and expertise to answer a question but it is asked of a much larger sample (within which the valid answer may exist but will be swamped by the rest)
- **Voting on the facts:** where there is an objective fact but, instead of obtaining hard evidence, a sample of people is asked to provide the answer
- **Crowdsourcing judgements:** where, instead of obtaining evidence and drawing their own conclusions, researchers ask a sample (many of whom may have no basis for making the judgement) to assess complex issues (such as risk).

As well as leading to unsound conclusions, the over-reliance on surveys could constrain the scope of the research by not addressing issues which could not be answered that way. To give an indication of whether this might be the case, a further (very limited) study was carried out:

Supply chain students often research the impact of outsourcing and it is a subject which typically has a fairly consistent set of topics to cover. In consultation with a leading academic expert, a list of 4 expected research issues in outsourcing was drawn up and used to assess the coverage of all 5 dissertations on the subject from recent cohorts. In each case, students collected data by questionnaire from large numbers of staff. By contrast, published studies (selected from a Google Scholar search of the topic) on the subject relied on documentary evidence and on questioning senior managers rather than simply random samples of staff. If the studies were to be comprehensive, it would be expected that the scope and the subsequent findings would cover the 4 issues in each of the 5 studies (20 in all.) In fact, only 9 out of the 20 were in the scope and only 3 were completely addressed in the findings (and another 6 were partially addressed). Coverage was, indeed, limited.

#### 4. Discussion

Some thoughts and observations on why students may choose surveys and ignore the wealth of archival data.

**Teaching:** It could be that students are taught to value primary data more than secondary sources. To investigate this, Research Methods textbooks were reviewed including standard general RM guides and some more specialised ones (Buglear, 2005, Bryman & Bell, 2015, Collis & Hussey, 2013, Easterby-Smith, Thorpe & Jackson, 2012, Gray, 2013, Maylor & Blackmon, 2005, Saunders & Lewis, 2011, Saunders, Lewis & Thornhill, 2016 and Scherbaum & Shockley, 2015). In general, little coverage was provided of secondary sources and that was more focussed on public databases and the secondary analysis of previous primary research. In most cases the use of data from within the organisation was hardly addressed at all. Moreover, there were often negative comments on the use of secondary data. For instance, a recent text on quantitative analysis for Business Masters students, describes a single case of using secondary data; in it, the researcher concludes: “that there is little insight that can be gained from analysing the data as it is very unlikely to provide an accurate and representative evaluation of the managers. She does not analyse the data further” (Scherbaum & Shockley, 2015)

**Terminology:** Information gathered through questionnaires is ‘primary’ data whereas that from archival sources is ‘secondary’. The Oxford dictionary definition of ‘secondary’ begins: “Coming after, *less important than*, or resulting from someone or something else that is primary” [authors’ emphasis] (Stevenson & Waite, 2016). It is not hard to see why students might perceive secondary data as less valuable.

**Barriers:** Even the weakest student can write a questionnaire. By contrast, digging into business data may be difficult in terms of gaining access, of finding the right data and analysing it meaningfully and these are not skills with which the average student is yet equipped.

## **5. Conclusion**

Although based on a small sample, this exploratory study does indicate both that the choice of method of many Masters students is skewed towards surveys and away from the use of organisational data and that this may have adverse impacts on the quality of their research. Allowing them to focus in this way and to ignore archival data (including 'big data') may not equip them fully to meet the needs of 21<sup>st</sup> century organisations. Further work to confirm the findings across a broader spectrum of students and environments, to understand the causes of their behaviour and develop appropriate remedies therefore appears justified.

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