

METHODOLOGICAL DEVELOPMENTS AND PUBLICATION TRENDS IN THE DETERMINANTS OF FIRM PROFITABILITY

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ABSTRACT

The purpose of this study is to investigate the methodological and publication trends in the discipline of firm profitability by looking at the determinants of firm profitability. This study includes a sample of 105 articles for the period 1967-2014 and uses content analysis as a primary method for analysis. All the selected articles are conceptual quantitative articles. The time period 1967-2014 has been divided into two time frames: 1967-2005 and 2006-2014. Analysis and advanced cross tabs have been done to look at trends across geographical regions and time period. An increasing trend was found in collaboration of authors from different regions. Academics were found to dominate research in this area. This will lead to future research opportunity for practitioners to collaborate with academics in research activity. An increasing trend was observed in Asia and Europe publishing more studies in the post-2005 era.

Keywords: Profits, firm profitability, publication trends, determinants of firm profitability

INTRODUCTION

Profit is a very important concept for a business. It is very important for the survival of a business, as without profits businesses cannot survive for a long time. Profit is the assessment of true worth of a business. In the simplest sense, profits can be defined as: total revenues less total expenses.

Profits are important for businesses for several reasons. Profits are the true measure of success of a business. They can be used as a source of finance of a business. Profits that are used as a source of finance are called retained earnings. These can be used to expand business operations by introducing new product lines, etc. Profits can attract suppliers, creditors and banks to provide future funds that can be used in to further expand and make a business flourish. The more profitable a business is, the greater the chances that investors would be interested in investing their money in that business, because only a profitable business is going to provide return on their investments. Profits are very important for survival and growth of business. Growth of a business is only possible when it is generating higher profits, and more profitable businesses show that they are being managed efficiently. Profits are the motivation for investors for investing money in businesses; they take a risk by making these investments because they want a return on their money. Higher the risk, higher the return will be for the investor.

Profits are used as a measure of profitability. It is very important to measure profitability. Hofstrand (2009) defined profitability in terms of economic profits or accounting profits: Accounting profits come from a net income statement and ensure the viability of a business, whereas economic profits are calculated by deducting opportunity along with all the business expenses from the total revenue of the business. Hofstrand defined opportunity costs as returns on investment given up by not investing your money somewhere else.

Profitability and cash flows should not be considered identical. Hofstrand (2009), in his study, explained that a profitable business can have cash flow problems. The income statement includes all the revenue and expenses of a business and the cash flow statement lists all the

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cash inflows and cash outflows, so the income statement tells about the profitability of a business whereas the cash flow statement tells about the liquidity of a business.

In order to analyse profitability three different methods are used: profitability ratios, break-even analysis, and return on investment and return on asset.

A recent content analysis using the determinants of profitability was performed in 2005. Barringer, Jones and Neubaum (2005), in their study, examined the attributes associated with rapid growth firms. This was a quantitative content analysis based on thematic analysis as the authors were trying to determine the characteristics of rapid growth firms and their founders. Recently no study has provided a comprehensive overview of methodological and publication trends in the literature of determinants of profitability. The purpose of the current study is to contribute to the literature by answering the following questions:

1. What methodologies and research designs have been used regarding determinants of firm profitability? What statistical and analytical techniques have been used in the past and what is their current status?
2. What are the publication trends across geographical regions and time?

LITERATURE REVIEW

Profitability is really important for the survival of a business. Every sector/industry has a different set of factors that determines the profitability of that particular sector of business.

In the manufacturing industry, different measures of market structure play an important role in determining the profitability. Jones, Laudadio and Persy (1973) in their research examined the impact of market structure on the profitability of Canadian manufacturing industries for the year 1965. They found that foreign competition, concentration, absolute capital requirements and product differentiation are important determinants of intra-industry differences in profitability. Among all these factors, they found that the coefficient of foreign competition is highly significant, which is why they concluded that it is a very important determinant of profitability.

McDonald (1999) examined in his study the determinants of profitability in Australian manufacturing firms using panel data of firms over the period 1984-1993. The results of this study showed that firm profitability is found to be negatively affected by import penetration and positively affected by industry concentration. The results also showed that industry and other macroeconomic variables significantly affect the profitability of a firm.

In the automobile industry the important determinants of profitability are the industry policies, diversification and the expansion of business. Agarwal (1991) examined the determinants of profitability in the Indian automobile manufacturing industry by taking into account the changes in the policy on profitability since 1981-1982. This study examined two sections – the car and non-car sectors – in the automobile industry using a dataset for the period 1996 to 1987. The results showed that profitability of the car sector is mainly determined by the age of the firm and diversification. It was suggested that older firms diversify their business by introducing new product lines in order to improve their profitability.

METHOD

The primary method used to analyse data in this study is content analysis. “Content analysis is a method for analyzing the content of a variety of data, such as visual and verbal data. It enables the reduction of phenomena or events into defined categories so as to better analyze and interpret them” (Harwood, 2003).

In this research area researchers have used content analysis in their studies but they have made contributions in the literature by primarily focusing on thematic analysis. This study is going to look at the methodological and publication trend analysis of the determinants of firm profitability in different industrial sectors.

SELECTION OF ARTICLES

The selection of articles followed a number of steps:

An advance search was done with the search engine EBSCO to search for the literature related to the determinants of profitability. In EBSCO, the database “Business source complete” was used to search for the articles related to the determinants of profitability, with the keywords ‘firm profitability’ in one of the ‘abstract’ or ‘title’ search field. In search categories, options were selected as follows: In ‘publication type’, academic journals were selected. In ‘limit your results’, only scholarly (peer-reviewed) journals were selected. In ‘document type’, articles were selected. This search returned a total of 1587 articles for the time period 1967-2014.

From 1587 articles, 230 articles were exported to a Microsoft Excel sheet via RefWorks. The RefWorks management software is used to create bibliographies and citations. With the help of RefWorks, articles were exported to a Microsoft Excel sheet from Business Source Complete. But before exporting the data to an Excel sheet, data was edited in RefWorks to check for duplicates. Once all duplicates were removed, data was then exported to an Excel sheet through RefWorks. RefWorks helped to organise the data in a columnar fashion in a Microsoft Excel sheet. In these columns data was presented with various headings such as reference, authors (primary), title (primary), keywords, periodical (full), publication year, publication date, volume, issue, start page, abstract, etc. To further organise this data, a few of the columns that were not necessary were omitted to reformat the data.

These 230 articles were selected randomly because I decided to choose a method of selecting articles that includes everything in the determinants of firm profitability such as all types of industries, various countries, and different forms of businesses, including financial and non-financial sectors. However, there have been different methods available for the selection of articles. The search for articles for such a study could be done through various methods of article selection; for instance, the search could be limited to the type of industries if a researcher wants to see the trends in that particular industry. Similarly, another method could be to restrict the search to a particular country or a particular industry in that specific country. Also, the time frame could be specified to see methodological and publication trends during that time period. I could have selected one of these methods but I decided to choose articles randomly. The search result showed articles from the period 1967-2014. Out of these 230 articles, 190 articles were screened as relevant articles. This screening for relevance was done through the reading the article abstract. As a result 105 articles were selected as a final sample due to the short time and resource availability.

CODING

In the current study working definitions regarding primary data, secondary data, empirical studies and conceptual studies were established. For this paper, empirical studies were defined as those using primary data and conceptual studies were the ones where secondary data, not firsthand data, was used for the research purpose.

Furthermore, primary data has been defined as data collected first hand, for instance when the respondents fill out a questionnaire and provide all the required information to the researcher. And secondary data is collected from secondary sources such as databanks, annual reports and stock exchanges, etc.

This study is related to the area of finance, so the main source of data used for such studies is secondary data, because for such type of studies researchers collect data for their studies from different databases, so these studies are conceptual in nature. Therefore the final sample of 105 articles selected for this study is based on all conceptual articles.

The two main research methods used are qualitative and quantitative methods. Qualitative research is more subjective in nature and no statistical tests are applied to it. In

contrast, quantitative research involves statistical techniques are used for the purpose of analysis.

Four categories can be formed by combining qualitative and quantitative research methods with empirical and conceptual studies. These are empirical qualitative, empirical quantitative, conceptual qualitative and conceptual quantitative.

In the current study all the conceptual quantitative articles are included. The authors of all these articles have used statistical techniques and observed the effect of different variables on the profitability of that business. Also, these articles are conceptual because they have used data taken from different data sources. So the final sample of the current study is based on conceptual quantitative articles only.

ANALYSIS

In this section results of content analysis are presented in two categories: methodological and publication trends. All the methodological and publication trends are provided in detail. Advance cross tabs have been done between different categories of methodological analysis.

METHODOLOGICAL DEVELOPMENTS

This study is based on all the conceptual quantitative studies. This section provides an overview of the methodological developments across regions and times within the discipline of firm profitability.

Figure 1, in Appendix 1, represents the distribution of a total of 105 studies across time. All the studies are conceptual and quantitative because each study is using data from secondary sources and some statistical techniques are applied to that data in order to determine the profitability. The total studies are almost equally distributed in both time frames. Up to 2005 there was a total of 51 studies, whereas in the post-2005 era this number increased to 54. This increase could be due to the greater availability of data sources.

Figure 2 shows the distribution of total studies among various regions. As the figure depicts, out of 105 studies, 33 studies have been done in Asia. This region includes all the countries from Eastern Asia, South-Central Asia and South-East Asia: Malaysia, Japan, China, Taiwan, Sri Lanka, Pakistan, Korea, Vietnam and India. 28 studies have been done in the region of North America. The next highest number of studies comes from Europe; the countries included in this region are Spain, Turkey, Germany, Belgium, France, Greece, Italy, Lithuania and Norway. And in the 'Others' category, countries like Nigeria and Ghana from West Africa and another country, Australia, are included; the total number of studies done in this region is 7.

In Figure 3, a trend in publication is revealed across time and regions. The figure shows that up to 2005 (1967-2005), most of the work was done in North America, but in the post-2005 era (2006-2014), authors from Asia have contributed most in the discipline of firm profitability. In Europe in the first few decades, fewer studies were done, but then in the post-2005 era there was an increase in the number of studies from 10 to 13 studies. A drastic increase is shown in Asia, where the number of studies done before 2006 has been increased from 7 to 26 studies.

Studies use different models in order to understand what actually determines the profitability of firms or industries and how it is going to affect the overall firm performance. Figure 4 represents studies using models with secondary data and 'Others' are the studies without using models to present their findings.

Stierwald (2010) in his study used two schools of thought identified by the modern literature in the discipline of industrial economics. The author used them in order to determine the performance of firms in terms of profitability. These two schools of thoughts were: firm effect model and structure conduct performance (SCP). He explained that in SCP, market structure is the main determinant of firm profitability, and profitability is mainly determined by the industry characteristics, whereas in the firm effect model, it is the firm characteristics

that determine the firm profitability. The author examined the determinants of profitability of larger Australian firms and reached conclusions in terms of the models. The main findings of his study were that variables at firm level determine the profitability of firms and industrial characteristics play a minor role.

Similarly, in the current study authors have used different models to explain the determinants of profitability. Most of them used the fixed effect model and random effect model. A few studies have used a multivariate model such as the CAPM model, Fama and French three-factor model, Carhart four-factor model, and five-factor model, and explained their findings in terms of the model used in their study.

Figure 5 shows the distribution of sample size used by studies. 28% of the studies have used the sample size in the range of 0-100. This is then followed by 16% of studies using a sample size of 100-200. There are very few studies using a sample size from medium to large. Only 6% of studies have a sample size of 501-1000. But 15% of studies have used a sample size of 1000 and above, when authors tried to determine the profitability of firms operating at multinational levels or when cross-country comparisons were made. A cross-sectional comparison was done among firms in that particular country with initial public offerings. It had a sample size of 1000 and above. Usually when comparisons were made at a large scale, a large sample size (1000 and above) was used. And comparisons among firms in a particular industry were made using a small size. Also in a few studies, authors were unable to collect data on firms that interested them, which is why they had to restrict their sample size to a small sample.

A comparison was made between the sample size and time in Figure 6, in Appendix 2. As the line of the graph shows, in both the time periods (1967-2005 and 2006-2014) studies have almost followed the same trend. Most of the studies use a sample size of 0-100 or 101-200. However, there is one change that can be seen from the graph, which is that in the period 1967-2005, very few studies have used a sample size of 1000 and above. But in time period 2006-2014 there has been a large increase in using a sample size of 1000 and above, because technology evolved greatly and there was an increase in multinational companies operating in different countries. This is why in order to look at the impact of research, development and technology on firms' profitability, large sample size was taken by the researchers in order to generalise the results.

Figure 7 presents data collection sources used in the articles examined in the current study. The most common data collection source is databases or different databanks such as the Fortune, Compustat, CMIE, Capitaline, ICAP, PATDAT, Compustat (Global), "NEEDS-Financial QUEST", and CMIE Prowess databases. Authors have used databases in their studies of the respective countries on which their studies were based. The next prominent source trend of studies is using annual reports as data collection source of firms of their interest. Stock exchanges have also been used to collect the data when information was required for all the companies listed on stock exchanges. A number of studies also used more than one data collection source.

In the current study, the unit of analysis includes both banks and companies. The number of units of analysis selected by these studies is given in Figure 8. In all the articles included in this study, the terms 'firms' and 'companies' have been interchangeably. But for banks the word 'bank' has been used. In a total of 105 studies, only three studies have used banks as their unit of analysis and the rest of the studies have used companies as the unit of analysis.

Analysis of statistical techniques used by the studies is shown in Figure 9. Mostly descriptive statistics techniques (mean, median, max, min, scatter plots, histogram, variance standard deviation, etc.) are being used by the studies. 22% of studies are using different types of regression other than the linear regression. This is shown in the 'Other Regression' category, which includes various types of regressions such as multivariate regression analysis, pooled

OLS regression models, cross-sectional regression analyses, panel data regression, etc. 12% of the studies have used linear regression analysis as a statistical technique to quantify their results. The technique of ANOVA/MANOVA is used by only 4% of studies. Similarly, ratio analysis is used by 2% of studies only. In others, statistical techniques such as chi square, Durbin Watson, path analysis, White test, factor analysis and F-statistics have been used.

Authors have selected different countries for their studies. Figure 10, in Appendix 3, presents the countries of data collection that have been used four times or more than four times. Countries of data collection appearing less than four times are included in the 'Others' category; most of these countries have appeared just once, like Vietnam, Thailand, Turkey, Norway, Italy, Portugal, etc. 24 studies have used USA as the country of data collection; most of the authors of these studies are from the same region, North America, but a few authors from North America collaborated with authors from Europe and Middle East to work on US firms.

In Asia, the countries of data collection are mainly India, Japan, China and Pakistan. Authors in this region have worked in collaboration with authors from other region like North America and Australia. There are a few other countries in the same region but they appeared just once. In Europe more studies have used data from countries like Germany and Greece. In the category 'Different Countries', authors have included more than one country in their studies for analysis. For example, in one study countries from regions such as North America, Europe and East Asia are included. The authors of this study are from Asia and they worked on multinational companies in the international engineering and construction industries.

Authors have chosen either a cross-sectional or longitudinal time horizon. In terms of the time horizon, most of the studies are cross-sectional in nature. Only 38% of total studies are longitudinal studies. In finance, most of the studies have used a cross-sectional time horizon in their studies. Longitudinal studies are fewer than cross-sectional studies, mainly because of the fact that in the long run market conditions change, so this ultimately has an impact on the determinants of profitability. This is why it is better to look at trends over a shorter time period. The reason that longitudinal studies are used less in studies is because it is costly to get the required data and information. Another limitation of longitudinal studies is that while it reveals changes over time, it tells us very little about what actually caused the change. This change could be because of the change in business cycle or market conditions.

Figure 11 presents the types of industries included in current study. 23% of studies have been in the manufacturing industry. In the manufacturing industry, industries like consumer goods manufacturing, healthcare, machinery, packaging and all the firms related to manufacturing business are included. In a few studies, all the firms related to the manufacturing business were included for analysis in order to determine the factors that can have an impact on the profitability of those companies. In the engineering industry all industries like the automobile, aluminum and steel industries were included, and the proportion of studies done in this discipline is 16%. The non-financial sector comprised 11% of studies; in this sector all the companies that are non-financial in nature are analysed for the respective country. Government-listed companies and multinational companies both comprised 7% of studies.

3% of total studies are from the banking sector. In the airline industry, 3% of studies have been done and this work has been in North America only. In the category of 'various industries', industries like new business startups, firms using new innovations in their business, telecommunication industry, food industry, textile industry, etc. are included. All these industries have appeared less than three times in the current study. In multinational companies' sector, all the countries where that multinational company is operating were taken into account in order to make a comparison among companies and to determine what actually are the main determinants of profitability of these companies in that country. These multinational companies belonged to different industrial sectors such as foreign subsidiaries, multinational industrial

enterprises, foreign acquired and non-acquired companies, and international engineering and construction industries.

PUBLICATION TRENDS

This section includes publication trend analysis of 105 studies in terms of authorship type, authorship per study and publication in higher-ranking journals.

Figure 12 presents the authorship type of all studies. All the authors in the current study were academics except for a single collaboration between an academic and practitioner. Bartunek and Daft (2001) in their study, explored this widening gap between academics and practitioners. They made a few suggestions, such as that a higher level of interaction of an academic with a practitioner will help to improve the quality of research. Also, system support such as from journal editors can really help in improving academic-practitioner relationships. It would really help to improve to generate and disseminate knowledge.

Figure 13 reveals authorship per study. Two authors per study has been the most common practice in the current study; 44% of studies have two authors. It is followed by 26% of studies with three authors per study. And next comes single authorship, at 23% of studies. Very few studies have four or five authors per study.

With respect to authors' region, in North America and in the 'Others' region, which includes Australia and Africa, there are no studies with four or five authors. And in Europe no study has five authors per study, but in this region all the rest of the combinations of authorship are found. Only in Asia and in collaboration, where authors are collaborating from different regions all five types of authorships have been used in studies.

DISCUSSION OF RESEARCH FINDINGS

An increasing trend has been observed in Asia, with publishing more studies in the time period 2006-2014. The same trend has been observed in Europe. But in North America fewer studies have been published in the post-2005 era.

More triangulations are found in terms of: more than one author per study, and more than one statistical technique used by studies in order to look at every dimension of the factors determining the profitability of that particular firm.

Academics seem to dominate the research in this area. Practitioners should be encouraged to contribute by participating more in research activity. There should be more collaboration between practitioners and academics.

Collaborations can exist among authors from different regions. This can really be helpful in order to determine the profitability of multinational firms in particular. This is because in the case of multinational firms the profitability is mainly determined by the national factors related to that particular country, so authors from that country can give a more clear and comprehensive picture of what actually is affecting the profitability of multinational firms operating in that country.

CONCLUSION AND FUTURE RESEARCH OPPORTUNITIES

In the literature, content analysis-based reviews of determinants of business profitability use thematic analysis. In recent times no study has been done on the methodological and publication trends in the factors determining the profitability of business. This study is a content analysis-based review of the literature on business profitability based on the methodological and publication trends in determinants of business profitability. Cross tabulations among various categories of data were done across time and authors' regions. An increasing trend is observed in authors contributing from Asia. Also, collaboration between authors from different regions has been found. Analysis revealed that most of the studies have followed the authorship type of two authors. This methodological development and publication trend analysis of

determinants of business profitability has developed some useful insights for future research opportunities.

- Research opportunity 1: Mixed-methods research designs such as qualitative and quantitative research designs have the potential to capture reality in its true sense, and more generalisable results can be produced.
- Research opportunity 2: In the current study about 99% of studies are authored by academics. There needs to be more collaboration between academics and practitioners studying business profitability.
- Research opportunity 3: More cross-sectional studies are done. There is a need to widen the scope of longitudinal studies.
- Research opportunity 4: Empirical research has the potential to unearth reality in order to produce more generalisable results in the discipline of determinants of business profitability.
- Research opportunity 5: There needs to be more collaboration among authors from different regions.

LIMITATIONS OF THE CURRENT STUDY

The current study is based on 105 articles, which is a very small sample size. With such a small sample, results cannot be generalised. By taking a large sample size, research findings can be generalised in a broader sense.

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Appendix 1

Figure 1: Total studies vs time

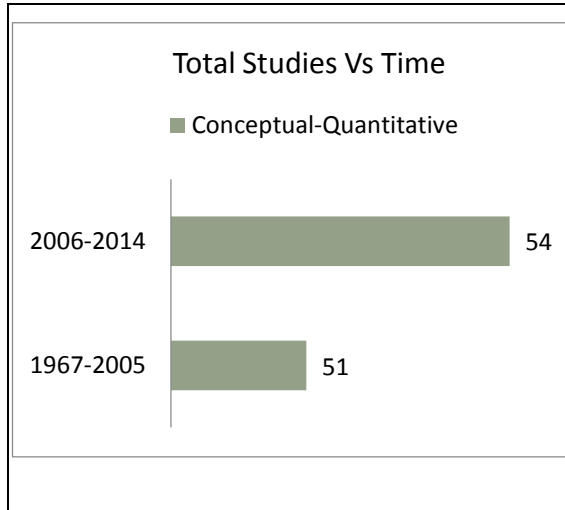


Figure 2: Publication trends across regions

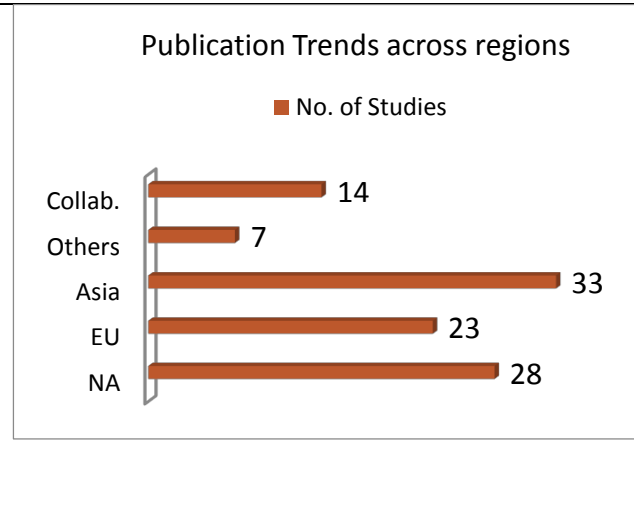


Figure 3: Total studies vs. time and authors' region

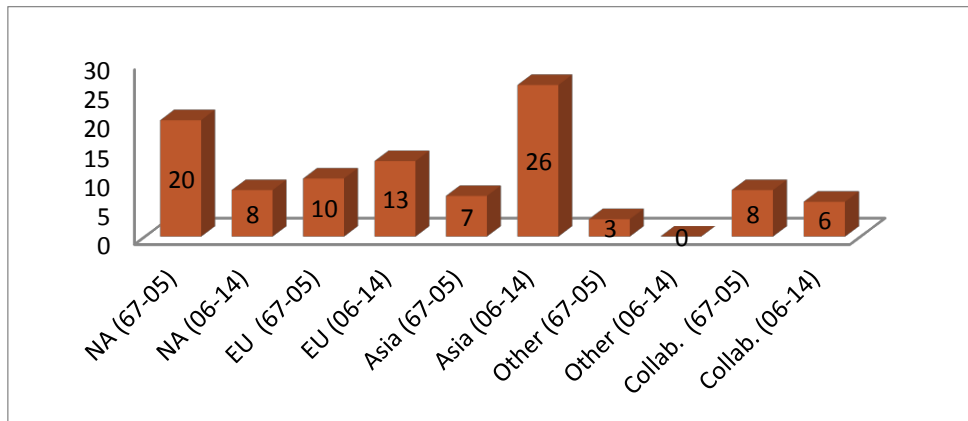


Figure 4: Studies using models with secondary data

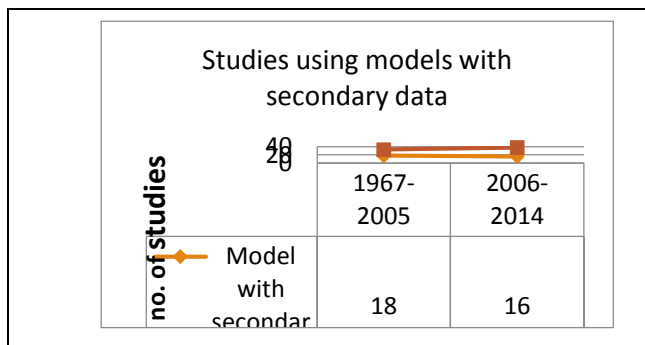
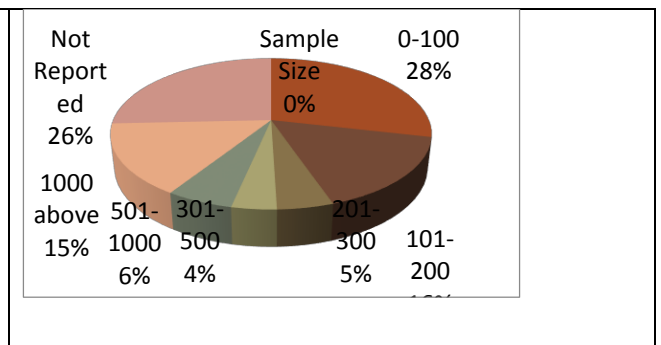


Figure 5: Sample size



Appendix 2

Figure 6: Sample size and decades

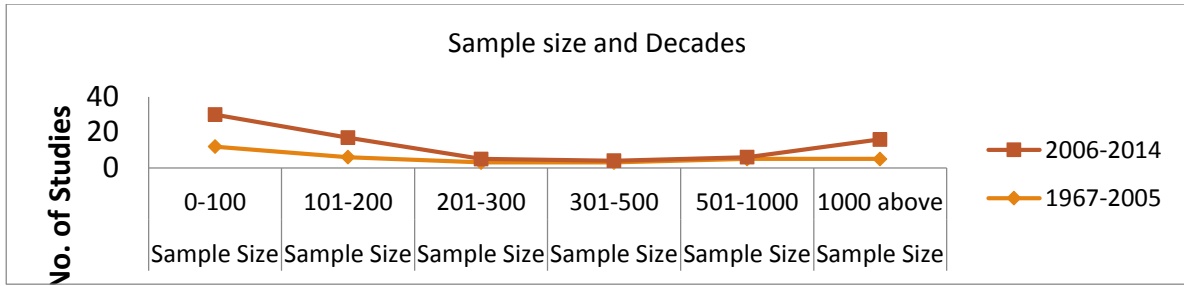


Figure 7: Data collection source of studies

Figure 8: Unit of analysis: Total studies

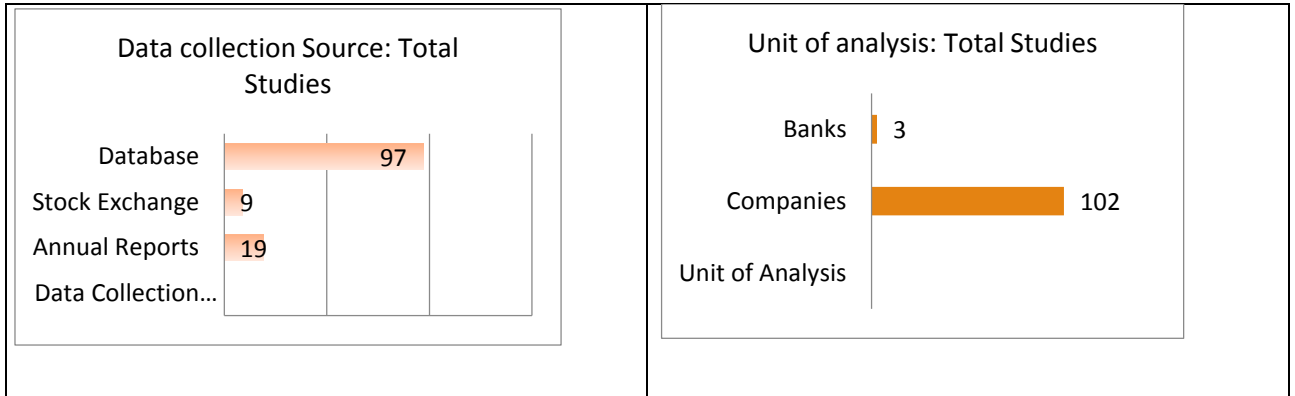
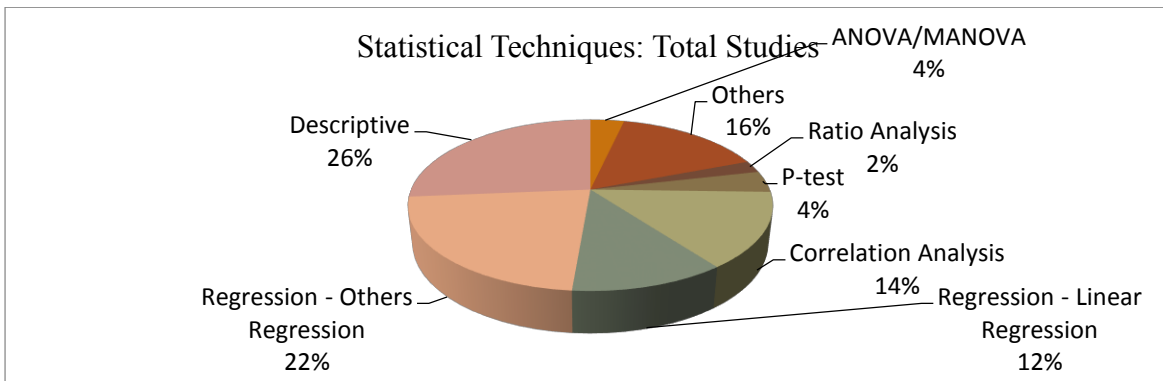


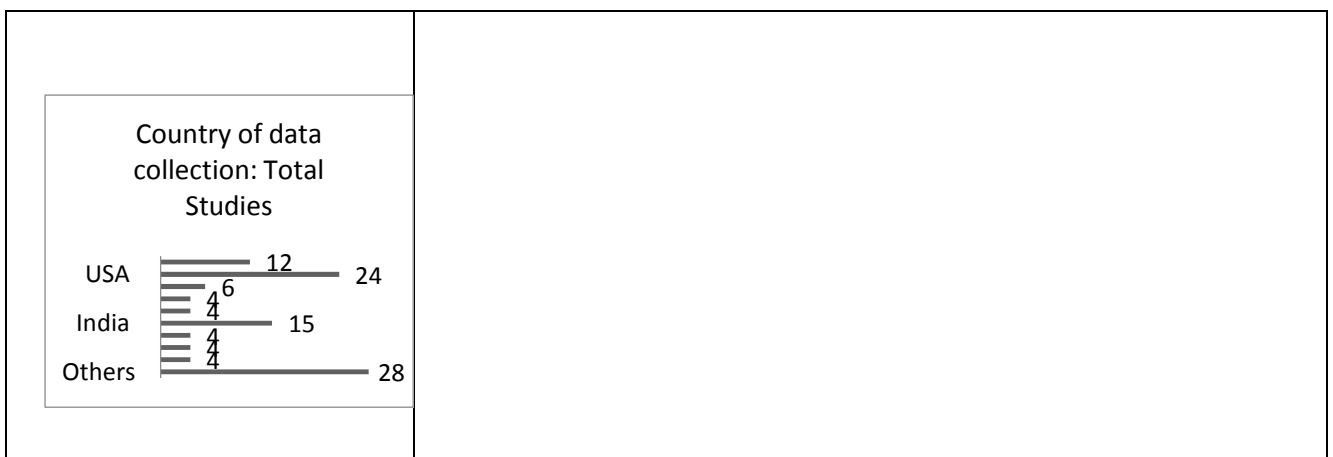
Figure 9: Statistical techniques: Total studies



Appendix 3

Figure 10: Country of data collection

Figure 11: Types of industries and total studies



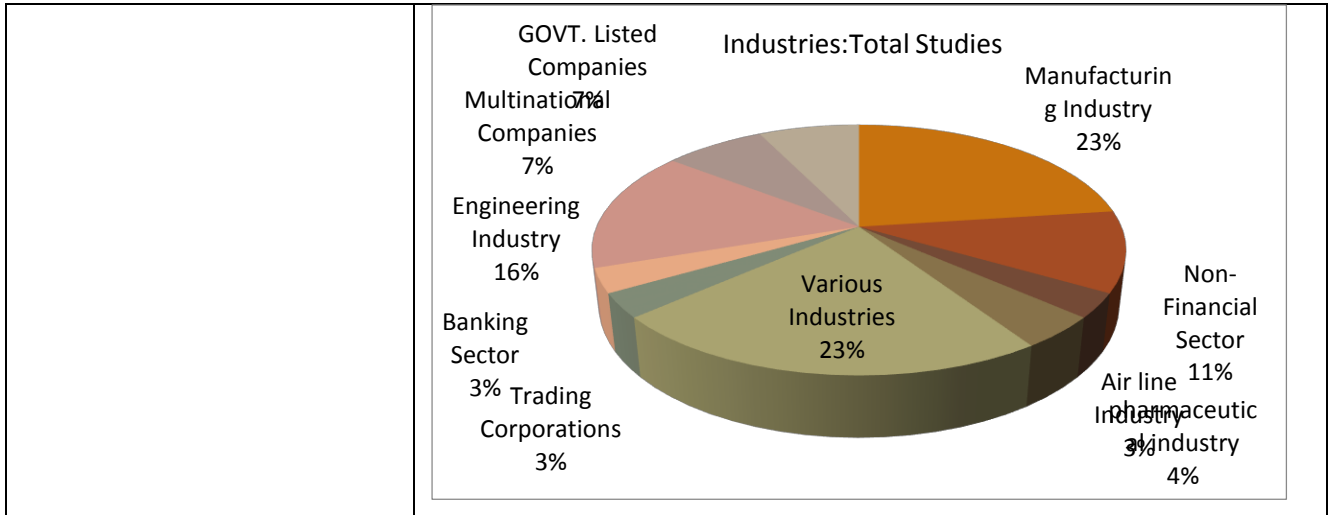
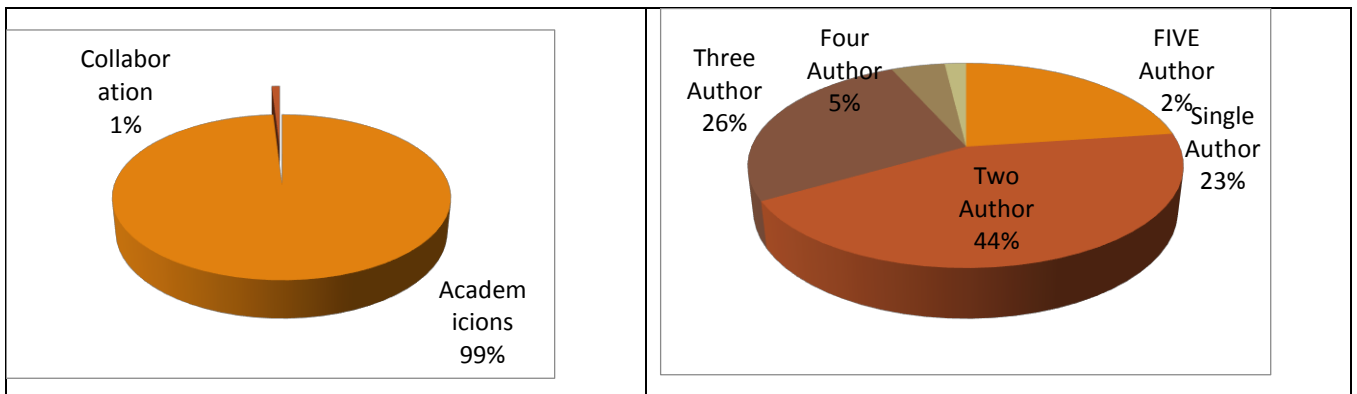


Figure 12: Authorship type: total studies

Figure 13:

Authorship per study



Respondent Country of Data Collection	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Australia AUS	1	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%
China CHINA	4	50%	50%	0%	25%	25%	0%	50%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	50%	50%
Brazil BRAZIL	1	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%
Belgium BELG	3	67%	33%	0%	100%	0%	0%	0%	0%	0%	67%	33%	0%	0%	0%	0%	0%	0%	0%	0%
Canada CAN	1	100%	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Finland FIN	1	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France FR	1	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Germany GER	4	50%	50%	0%	100%	0%	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%
Ghana GHANA	1	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
Greece GREECE	4	75%	25%	0%	50%	0%	0%	50%	0%	0%	50%	50%	0%	0%	0%	0%	0%	100%	0%	0%
India INDIA	15	13%	87%	0%	0%	93%	0%	7%	0%	0%	0%	0%	14%	86%	0%	0%	0%	0%	100%	0%
Italy ITALY	1	0%	100%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Japan JAPAN	4	25%	75%	25%	0%	25%	0%	50%	0%	100%	0%	0%	0%	100%	0%	0%	50%	50%	0%	0%
Korea KOREA	2	50%	50%	0%	0%	100%	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%
Malaysia MALA	2	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%
Lithuania LITHU	1	0%	100%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Newzeland NEWZ	1	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Nigeria NIG	4	25%	75%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	25%	75%	0%	0%	0%	0%
Norway NOR	1	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pakistan PAK	6	17%	83%	0%	0%	100%	0%	0%	0%	0%	0%	17%	83%	0%	0%	0%	0%	0%	0%	0%
Portugal PORT	1	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Spain SPAIN	2	0%	100%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sri Lanka SRI	1	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Taiwan TAIWAN	2	50%	50%	0%	0%	100%	0%	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%
Thailand THAI	1	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%
Turkey TURKEY	1	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
UK UK	2	100%	0%	0%	50%	0%	0%	50%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%
USA USA	24	71%	29%	79%	4%	8%	0%	8%	74%	26%	100%	0%	0%	100%	0%	0%	100%	0%	100%	0%
vietnam V	1	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
Different Countries DC	5	40%	60%	40%	0%	20%	0%	40%	50%	50%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
Not Given NG	7	71%	29%	71%	14%	14%	0%	0%	80%	20%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%
Number of Authors																				
1	24	46%	54%	33%	13%	38%	13%	4%	63%	38%	33%	67%	22%	78%	67%	33%	100%	100%	0%	0%
2	46	50%	50%	26%	24%	30%	4%	15%	92%	8%	64%	36%	21%	79%	0%	100%	29%	71%	0%	0%
3	28	50%	50%	29%	25%	25%	7%	14%	50%	50%	57%	43%	14%	86%	50%	50%	100%	0%	0%	0%
4	5	40%	60%	0%	40%	40%	0%	20%	0%	0%	50%	50%	0%	100%	0%	0%	100%	0%	0%	0%
5	2	50%	50%	0%	0%	50%	0%	50%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%

Appendix III - Publication Patterns (Percentages)																		
	By Years			By Region					By Years within Region									
	Total	1967-2005	2006-2014	NA	EU	Asia	Others	Collab.	NA		EU		ASIA		OTHERS		COLLAB.	
									1967-2005	2006-2014	1967-2005	2006-2014	1967-2005	2006-2014	1967-2005	2006-2014	1967-2005	2006-2014
Total Studies	105	51	54	28	23	33	7	14	20	8	13	10	7	26	3	4	8	6
Authorship-Type																		
Academics	99%	100%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Acad./Practitioner (Collaboration)	1%	100%	1%															
Authorship-Per Study																		
Single Author	23%	22%	24%	29%	13%	27%	43%	7%	25%	38%	8%	20%	29%	27%	67%	25%	13%	0%
Two Author	44%	45%	43%	43%	48%	42%	29%	50%	55%	13%	54%	40%	43%	42%	0%	50%	25%	83%
Three Author	27%	27%	26%	29%	30%	21%	29%	29%	20%	50%	31%	30%	14%	23%	33%	25%	50%	0%
Four Author	5%	4%	6%	0%	9%	6%	0%	7%	0%	8%	10%	0%	8%	0%	0%	13%	0%	0%
FIVE Author	2%	2%	2%	0%	0%	3%	0%	7%	0%	0%	0%	0%	14%	0%	0%	0%	0%	17%
Journals (Highest Publications)																		
Strategic Management Journal(A*)	5%	8%	2%	0%	9%	3%	0%	14%	0%	0%	15%	0%	0%	4%	0%	0%	25%	0%
Corporate Governance: An International Review (A)	4%	6%	2%	0%	9%	0%	0%	14%	0%	0%	15%	0%	0%	0%	0%	0%	13%	17%
Accounting & Finance (A)	3%	0%	6%	0%	9%	3%	0%	0%	0%	0%	20%	0%	4%	0%	0%	0%	0%	0%
International Journal of Business Insights & Transformation	3%	0%	6%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	0%	0%
The Journal of Finance(A*)	3%	6%	0%	11%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Journal of Management & Governance (C)	3%	4%	2%	4%	4%	0%	0%	7%	5%	0%	8%	0%	0%	0%	0%	0%	0%	17%
Managerial & Decision Economics(B)	3%	4%	2%	7%	0%	0%	0%	7%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Appendix 4

	Northern Asia	Australia	Eastern Asia	Eastern Europe	North America	North America	Northern Europe	Southeast Asia	South-East Asia	Southern Europe	Western Europe	Grand Total
Authors' regions												
Australia												
Brazil												
Eastern Asia		1				1		1				3
Eastern Europe	1											1
Middle East					1							1
North America			1				2		1	1		5
Northern Europe												
Oceania; Australia												
South-Central Asia				1								1
Southeast Asia												
Southern Europe							1				2	3
West Africa												
Western Europe												
Grand Total	1	1	1	1	1	1	3	1	1	1	2	14