

CHAPTER 4

RESEARCH METHODOLOGY

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RESEARCH METHODOLOGY

4.1. Introduction

The methodology section is integral to the fabric of this research, establishing a structured path to delve into the influences on MBA graduate placements in Coastal Karnataka. This chapter unfolds the investigative framework applied to unearth the myriad factors that shape placement outcomes in this distinct region. Beginning with a brief introduction that underscores the essence of a rigorous methodology to meet the objectives laid out, we venture into a granular discussion of the research design selected for its unity with the study's exploratory and descriptive ambitions, aiming to capture the essence of placement dynamics in Coastal Karnataka.

The narrative then guides us through the geographical and academic backdrop of Coastal Karnataka, painting a detailed picture of the setting where this study unfolds. It meticulously delineates the population and sample selection, explaining the rationale behind the chosen sampling strategy to ensure a representative and pertinent participant pool.

Following this, we explore the diverse strategies employed for data collection, ranging from surveys and interviews to the utilization of secondary data, each complemented by a rationale for their selection and contribution to the research objectives. This discussion seamlessly clarifies the study's variables, shedding light on how each variable's measurement aligns with the research aims.

The chapter progresses to illustrate the data analysis methods employed, highlighting the synergy between quantitative and qualitative approaches in dissecting the data gathered, thereby paving the way for a comprehensive response to the research inquiries. Ethical considerations are also brought to the forefront, emphasizing the commitment to uphold the ethical standards of research and ensure participant protection.

Reflection on the methodology's inherent limitations is offered, providing a candid evaluation of potential influences on the study's outcomes. The chapter culminates in a summary that encapsulates the methodological journey undertaken and reaffirms the importance of this systematic and ethical inquiry into the intricate dynamics of MBA graduate placements in Coastal Karnataka—a region undergoing rapid transformation in its economic and educational spheres.

This methodology overview, therefore, serves as the groundwork of this research and as a testament to the thoughtful and methodical approach employed to explore the factors influencing MBA graduate placements, offering valuable insights into a region poised at the intersection of economic growth and educational innovation.

4.2. Importance of research methodology in addressing the study's objectives

The importance of the research methodology in addressing the study's objectives is underscored by its role in providing a structured and rigorous framework for investigation. This methodology serves as the cornerstone of the study, ensuring a meticulous examination of the factors influencing MBA graduate placements in Coastal Karnataka. Its significance is multi-dimensional, impacting various aspects of the research process.

Systematic Inquiry

The methodology ensures a systematic research approach, enabling a coherent and orderly exploration of the research questions. It lays out clear procedures for data collection, analysis, and interpretation, promoting a disciplined research process. This systematic approach is critical for dissecting the complex dynamics affecting MBA graduate placements, thereby directly aligning with the study's objectives. **Systematic Approach for Efficient Use of Research Methods in Educational Theory** by Demakova and Shustova (2021) emphasizes the need for integrating diverse research methods to enhance the comprehension of educational phenomena, including MBA graduate placements. This study provides a framework for employing a systematic approach to investigate the multifaceted aspects of MBA education and its impact on graduate employability (Demakova & Shustova, 2021).

Transparency and Reproducibility

Detailing the research methodology enhances the transparency of the study, providing insight into the research process and the basis for conclusions drawn. This transparency is vital for the reproducibility of the research, a fundamental element of scholarly inquiry. It allows for the potential replication of the study in different contexts or with diverse populations, broadening the understanding of MBA graduate placements beyond the specific context of Coastal Karnataka. A Systematic Literature Review by Matos et al. (2023) contributes to understanding the pedagogical cultures associated with teaching and learning research methods in MBA programs. Identifying trends and pitfalls in research methodology education can directly

influence the quality of future empirical studies on MBA graduate placement, ensuring graduates possess the necessary skills and knowledge demanded by the industry (Matos et al., 2023).

Addressing the Objectives

The methodology is closely tied to the study's goals, with the chosen research approach directly facilitating the investigation of the research questions. The study might utilize various processes, such as qualitative, quantitative, or mixed methods, depending on its specific aims—whether to quantify placement rates, understand graduate experiences, or evaluate the impact of educational interventions. This alignment ensures that the research methodology contributes effectively to attaining the study's objectives.

By establishing a systematic, transparent, and objective-aligned framework, the research methodology is indispensable in uncovering the intricacies of MBA graduate placements in Coastal Karnataka. It plays a crucial role in navigating the research process, enabling the study to achieve its aims and contribute valuable insights to the academic discourse and practical considerations in education and employment.

Incorporating the detailed participant response distribution and employment status into the research design section significantly enriches the understanding and interpretation of the study's methodology and findings.

4.3. Research Design

This study is dedicated to uncovering factors contributing to successful job placement for MBA graduates in Coastal Karnataka. Adopting a quantitative research design, the investigation explores how demographic, academic, and co-curricular variables, soft skills, institutional ranking, and self-esteem influence job placement outcomes. The ultimate goal is to offer actionable recommendations for MBA institutions to enhance their students' job placement prospects. Our study, focusing on identifying the key factors influencing the successful job placement of MBA graduates in Coastal Karnataka, leverages a quantitative research design structured around a cross-sectional survey. Integrating response distribution and employment status data into our analysis deepens the insight into our research methodology's effectiveness and the reliability of our findings.

4.3.1. Detailed Research Design

A cross-sectional design is employed to gather data at a singular point in time, aligning perfectly with the study's objectives to examine the variables associated with job placement success among MBA graduates. The primary instrument for data collection will be a survey questionnaire, meticulously designed to capture the nuances of the variables under investigation.

4.3.2. Population of the Study

The study zeroes in on MBA graduates across all institutions in Coastal Karnataka who have completed a two-year full-time MBA program. This distinct group is of particular interest due to the region's dynamic educational landscape and the diversity of industries it hosts, ranging from IT to tourism, making it an ideal setting for examining MBA graduate employability and the efficacy of their education in securing job placements.

4.3.3. Sampling Method and Design

A comprehensive approach is crucial for an in-depth examination of determining the appropriate sample size for a research study focused on the employability skills of MBA graduates, particularly in the context of analyzing categorical data such as employment status. This detailed methodology aligns to accurately assess proportions among survey respondents, such as the ratio of employed to unemployed MBA graduates, thereby ensuring the representativeness and reliability of the study outcomes.

Detailed Methodology for Sample Size Calculation

Calculating the sample size is pivotal in research design, directly influencing the statistical power and accuracy of the study's findings. For surveys aiming to discern the impact of various skills on MBA graduates' employability, where the primary focus is on dichotomous outcomes (e.g., employed vs. not employed), the sample size calculation is tailored to estimate a population proportion within a specified level of precision.

The formula for Estimating Population Proportion

The selected formula for this purpose, designed to accommodate categorical variables and facilitate the use of statistical tests such as the Chi-square test for independence, is as follows:

$$n = \frac{Z^2 \cdot p \cdot (1 - p)}{E^2}$$

- **n**: The required sample size to achieve the desired statistical confidence and power.
- **Z**: The Z-score corresponding to the desired confidence level, with a value of 1.96 typically representing a 95% confidence level, obtained from standard Z distribution tables.
- **p**: The estimated proportion of the population exhibiting a particular characteristic (e.g., employment rate among MBA graduates). In cases where this proportion is unknown, a conservative estimate of 0.5 is employed to ensure maximum sample size and variability.
- **E**: The margin of error, representing the level of precision the researcher aims to achieve, is commonly set at 0.05 for a 5% margin.

Application and Calculation Example

Considering the study's specifications:

- A 95% confidence level, correlating to a **Z**-score of 1.96.
- A margin of error (**E**) of 5% (0.05).
- Employing a conservative estimate of **p** = 0.5 to account for maximum variability.

The calculation unfolds as follows:

$$n = \frac{(1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}{(0.05)^2} = 384.16$$

Hence, a sample size of approximately 385 respondents is deemed necessary to confidently represent the MBA graduate population with a 95% confidence level and a 5% margin of error.

Considering multiple participants from each institution, the minimum sample size was estimated as 578 to account for the cluster effect (design effect 1.5). A common design effect used is 1.5, which adjusts for the fact that clustered sampling tends to reduce the statistical efficiency compared to simple random sampling.

Sample size after adjusting for design effect: $385 \times 1.5 = 577.5$

Anticipating a non-response rate of 30% the minimum number of questionnaire to be administered to the participants was 825.

Conclusion and Implications for Research

This meticulous approach to sample size calculation underscores its fundamental role in empirical research, particularly when assessing categorical outcomes within a specified precision range. By adhering to this methodological rigor, the study not only achieves a level of confidence and precision in its findings but also lays a solid foundation for future investigations into the employability skills of MBA graduates. The alignment of the actual response rate with the calculated sample size requirements attests to the method's efficacy, promising reliability and accuracy in the subsequent analysis and interpretation of the data collected.

4.3.4. Detailed Response Distribution

The methodology was grounded in an online survey distributed to 850 potential respondents, achieving a commendable 74.24% response rate with 631 completed questionnaires. This high level of engagement underscores the relevance and importance of our research topic among MBA graduates in Coastal Karnataka. A non-response rate of 25.76%, equating to 219 individuals, was observed, reflecting common challenges such as time constraints or perceived irrelevance. The robust response rate lends significant credibility to our study, enhancing the generalizability of our findings within the targeted population.

4.3.5. Employment Status of Respondents

The employment status of our 631 respondents reveals a diverse array of professional outcomes post-graduation, serving as a foundation for a nuanced analysis of job placement determinants. The subsequent focus on a refined sample of 541 participants—excluding those pursuing further education—facilitates a targeted exploration into the employment landscape for MBA graduates.

4.3.6. Enhanced Methodological Rigor

This detailed account of the participant response distribution and employment status not only illustrates the methodological rigour of our study but also reinforces the pertinence and

precision of our approach in investigating MBA graduate placement in Coastal Karnataka. By carefully navigating through the layers of our research design, from the broad sweep of participant engagement to the intricate breakdown of employment statuses, we ensure a comprehensive and accurate reflection of the factors influencing MBA job placement outcomes.

Through this meticulously structured research design, we aim to unveil the multifaceted influences on job placement success, providing invaluable insights for educational institutions seeking to enhance their MBA programs and, ultimately, the employability of their graduates in the ever-evolving professional landscape of Coastal Karnataka.

4.3.7. Data Collection Strategy

Data collection was executed through a structured online survey administered via Google Forms. The questionnaire was organized into four key sections: demographic details, academic background, co-curricular activities, and an assessment of soft skills.

4.3.8. Primary and Secondary Data

Primary data was amassed through the survey, designed to gather comprehensive information on the relevant demographic, academic, and co-curricular variables and assessments of soft skills, institutional ranking, and self-esteem. To complement the primary data and provide a theoretical underpinning for the study, secondary data sources were extensively reviewed. These included:

- **Academic Publications:** Peer-reviewed articles, theses, and dissertations offering insights into MBA education, graduate employability, and factors influencing job placements were reviewed to build a robust literature framework for the study.
- **Industry Reports:** Reports from educational institutions in Coastal Karnataka, employment statistics published by governmental and non-governmental organizations, and industry-specific reports were examined to understand the broader context of MBA graduate employability.

4.3.9. Measures Taken to Ensure Data Quality and Integrity

To uphold the quality and integrity of the collected data, several measures were implemented:

- **Pre-testing the Questionnaire:** The survey instrument was piloted with a small group of MBA graduates to identify and rectify any ambiguities or errors, ensuring clarity and reliability.
- **Anonymity and Confidentiality:** Respondents were assured of their anonymity and the confidentiality of their responses to encourage honesty and reduce response bias.
- **Data Cleaning:** Following data collection, the dataset underwent a thorough cleaning process to identify and address any inconsistencies, incomplete responses, or outliers, enhancing the accuracy of the analysis.

Through these meticulously planned data collection methods and quality assurance measures, the study aims to provide a reliable and insightful exploration of the factors influencing the job placement of MBA graduates in Coastal Karnataka, grounded in both empirical evidence and theoretical frameworks.

4.3.10. Measurement Scales

The survey used a Likert scale ranging from 0 to 4 for evaluating soft skills, with 0 indicating 'poor' and four denoting 'excellent'. Other questionnaire items utilized nominal and ordinal scales to measure different variables effectively.

4.3.11. Data Analysis Procedure

The collected data have undergone thorough analysis employing both descriptive and inferential statistics. Descriptive statistics summarize the demographic, academic, and co-curricular data. In contrast, inferential statistics, including correlation and regression analysis, can be applied to discern the relationships between various variables and job placement outcomes. The use of **Jamovi** for data analysis underscores the innovative and accessible nature of our research process. Through this detailed research design, we aim to uncover the myriad factors that influence job placement success, thereby equipping educational institutions with the knowledge to enhance the career prospects of their graduates in a dynamic professional environment.

4.4. Study Setting

The geographic location of the study is Coastal Karnataka, a region along the southwestern coast of India known for its rich cultural heritage, lush landscapes, and burgeoning educational

ecosystem. Coastal Karnataka comprises the Coastal districts of Udupi, Dakshina Kannada, and Uttara Kannada. Over the years, this region has witnessed significant growth in management education, becoming home to several institutions offering MBA programs designed to equip students with the knowledge and skills required to excel in the dynamic business world.

Coastal Karnataka's unique socio-economic landscape and its role as an educational hub have amplified the importance of scrutinizing factors influencing MBA graduate placement. The region is characterized by vibrant commercial activities and burgeoning industries, fueling a significant demand for adept business professionals. This demand is propelled further by the region's economic growth, which has expanded traditional and new-age industries. The region's distinctive mix of industries, including IT, manufacturing, tourism, and agriculture, accentuates the relevance of MBA education here.

The study setting's contextual background is critical to understanding the dynamics affecting MBA graduate placements in Coastal Karnataka. Despite the growth of institutions offering MBA programs, there is considerable variability in their ability to ensure successful job placements, raising several critical questions and necessitating an in-depth understanding of factors influencing regional MBA job placements. This disparity underscores the importance of the study, aiming to investigate and analyze the pivotal factors affecting the placement of MBA graduates in Coastal Karnataka. By delving into regional economic growth patterns, industry demands, institutional capabilities, and the evolving job market, the study seeks valuable insights into the dynamics of MBA job placements in this rapidly changing global business environment.

Hence, Coastal Karnataka, with its unique economic and educational landscape, provides a rich setting for investigating the factors affecting the employability and placement outcomes of MBA graduates. The study's geographical focus on this region allows for an understanding of local employment dynamics and educational effectiveness, aiming to offer actionable insights for enhancing MBA graduate employability in an area at the cusp of industrial and academic transformation.

4.5. Variables of the Study

The study's research framework is structured around a comprehensive analysis of variables that influence the job placement success of MBA graduates in Coastal Karnataka.

Dependent Variable: The primary dependent variable in this study is *Job Placement Success*, operationalized as the employment status of MBA graduates within six months post-graduation. This includes being employed full-time in the field of specialization, employed but not in the field of specialization, and part-time employment.

Independent Variables: The independent variables encompass many factors believed to impact the dependent variable. These include:

Demographic Variables: Age, gender, and geographic location.

Academic Background: Academic performance (GPA), area of specialization, and academic achievements.

Co-curricular Activities: Participation in internships, workshops, and other co-curricular engagements relevant to their field of study.

Soft Skills: Communication skills, leadership ability, teamwork, and adaptability.

Institutional Ranking: The perceived quality and ranking of the educational institution attended.

4.6. Operational Definitions of Key Variables

- **Job Placement Success:** Measured by the respondents' employment status within six months after completing their MBA. It is categorized into employed (full-time/part-time in their specialization or not) and unemployed.
- **Demographic Variables:**
 - *Age:* Reported in years.
 - *Gender:* Categorized as male, female, or other.
 - *Geographic Location:* Specified by the respondent's residential area within Coastal Karnataka.
- **Academic Background:**
 - *GPA:* The cumulative grade point average achieved in the MBA program, measured on a scale of 0 to 4.0.

- **Area of Specialization:** The specific field of study within the MBA program, such as finance, marketing, human resources, etc.
- **Academic Achievements:** Recognitions or awards received during the MBA program.
- **Co-curricular Activities:** This variable captures the extent of participation in activities beyond the academic curriculum, such as internships, workshops, seminars, and other extracurricular engagements relevant to their MBA specialization.
- **Soft Skills:** Assessed through a self-reported Likert scale ranging from 0 (poor) to 4 (excellent), measuring competencies in communication, leadership, teamwork, and adaptability.
- **Institutional Ranking:** The ranking of the educational institution attended by the respondent, based on publicly available rankings or accreditation status, indicates the institution's perceived quality.

These variables are meticulously defined and measured to ensure the clarity and precision of the study's analysis. By comprehensively exploring these factors, the study aims to identify actionable insights into the dynamics influencing MBA graduates' job placement success in Coastal Karnataka, thereby contributing to the broader academic discourse and practical implications in business education and employment.

4.7. Data Analysis Techniques

In our study exploring the factors associated with successful job placement of MBA graduates in Coastal Karnataka, a rigorous data analysis process was employed, harnessing the capabilities of Jamovi open statistical software version 2.4.11. This choice reflects our commitment to utilizing accessible yet powerful analytical tools capable of performing various statistical analyses.

Statistical Tools and Software Used for Data Analysis

- **Jamovi Open Statistical Software Version 2.4.11:** Jamovi was selected for its user-friendly interface, versatility in conducting various statistical tests, and open-source nature, making it an excellent tool for educational research. The software's

compatibility with the latest data analysis techniques allows for a detailed exploration of the research data, providing clarity and depth to the findings.

Techniques for Analysing Quantitative Data

- **Descriptive Statistics:** The initial analysis stage involved summarizing the categorical data through the computation of frequencies and percentages, providing a clear picture of the distribution of variables such as demographic characteristics, academic background, and co-curricular activities among the respondents. For continuous data, central tendency and dispersion measures, specifically mean and standard deviation were calculated to summarize variables like self-esteem and soft skills levels.
- **Inferential Statistics:** The Chi-square test was utilised to investigate the relationship between employment status (dependent variable) and various categorical variables (independent variables). This test is beneficial for identifying associations between categorical variables, thereby shedding light on how different factors may influence MBA graduates' employment outcomes. Additionally, the t-test was employed to examine the association between continuous independent variables, such as self-esteem and soft skills, and employment status. The t-test helps determine if there are statistically significant differences in the means of these variables between employed and unemployed graduates, providing insights into the traits that may contribute to job placement success.

In the multifaceted realm of job placement for MBA graduates, data analysis is the backbone for unearthing actionable insights and forging connections between academic endeavours and professional success. The present study, rooted in the coastal landscape of Karnataka, employs a rigorous data analysis regimen to distil the essence of myriad variables influencing the employability of recent graduates. By harmonizing quantitative and qualitative methodologies, the analysis transcends the mere tabulation of demographic, academic, and co-curricular statistics, delving deeper into the qualitative substrata of soft skills, institutional prestige, and personal self-esteem.

The quantitative facet of the study, adeptly handled through statistical software, sheds light on patterns and correlations through methods such as the Chi-square test and t-test, dissecting the influence of each variable on job placement outcomes. In contrast, the qualitative component

adopts a narrative stance, interpreting open-ended survey responses to capture the subtleties and personal narratives that quantitative data might overlook.

The symbiosis of these approaches furnishes a holistic vista of the factors at play, presenting a layered understanding of what propels MBA graduates in Coastal Karnataka towards successful job placements. The study's data analysis augments academic knowledge and bestows practical recommendations for educational institutions and policy-making bodies, ultimately aspiring to refine the employability quotient of future business leaders.

4.8. Overview of the Chapter

Chapter 4 delineates the comprehensive research methodology employed to investigate the factors influencing job placement success among MBA graduates in Coastal Karnataka. It begins with an overview of the methodological framework, emphasizing the systematic approach essential for addressing the study's objectives. The chapter details the research design, which utilizes a cross-sectional survey to capture a snapshot of various influencing factors such as demographic characteristics, academic background, co-curricular activities, soft skills, and institutional ranking. The study's robust methodology is further reinforced by a high response rate and a well-considered sampling strategy, ensuring the reliability and relevance of the findings. Detailed attention is given to the operational definitions of key variables and the data collection strategy, which involves primary and secondary data sources to understand the research context comprehensively.

The chapter also outlines the data analysis techniques employed, utilizing Jamovi software for descriptive and inferential statistical analysis. This approach allows for a thorough examination of relationships between variables and their impact on job placement outcomes. Integrating quantitative methods, such as Chi-square tests and t-tests, with qualitative insights from open-ended responses provides a nuanced perspective on the factors affecting employability. By methodically analyzing these variables and their interconnections, the study aims to offer actionable insights for enhancing MBA programs and improving graduate job placement in Coastal Karnataka. The chapter concludes with a reflection on the study's methodological rigor and its implications for educational institutions and policy-making bodies, underscoring its contribution to the field of business education and employment