Research Methodology

CHAPTER III

RESEARCH METHODOLOGY

This Chapter deals with the methodology adopted while conducting this research. It starts with the research purpose, research strategy and research approach. The later part delivers the methodology adopted for developing the instrument, sampling pattern, data collection and a brief summary on the statistical analysis.

3.1 RESEARCH PURPOSE

The research purpose and research questions reveal that this study is descriptive and causal in nature. Descriptive research design describes what exists and helps to uncover new facts and meaning of the study. The purpose of descriptive research is to observe, describe, and document the aspects of a situation as it naturally occurs (Polit & Hungler 1999). This study focuses in identifying the factors that influence OCB in a detailed manner and the impact of OCB on Intention to stay among the bank employees in Coimbatore city by using questionnaire. Thus, descriptive research design is mostly suitable for this study. Further, since the study also focuses in identifying the factors that influence OCB and the impact of OCB on Intention to Stay, therefore causal research design is also suitable for this study and the same is applied.

3.2 RESEARCH STRATEGY

A survey strategy approach is used for the study. Since this research uses a questionnaire to elicit responses from the bank employees regarding their perception about OCB, Intention to Stay and the factors that influence OCB.

3.3 RESEARCH APPROACH

This research adopts quantitative approach. Since responses for the dimensions of the study is collected using a 5 point Likert scale with ends 5 – Strongly Agree; 4 – Agree; 3 - Neutral; 2 - Disagree; and 1 – Strongly Disagree.

3.4 INSTRUMENT VALIDATION

Churchill Jr. (1979) mentions that the domain of the constructs is identified thorough literature review to understand the definitions of the constructs of interest and to

identify an exhaustive list of factors. Following the above guidelines, as discussed in Chapter 2 the study identifies the factors that influence OCB as: Job Content, Organizational Justice, Formal Mentoring Support, Career Growth Prospects, Organizational Climate, and HRM Practices.

3.4.1 Questionnaire Used For the Study

The scaling technique is a tool used to convert the qualitative information into a quantitative one. This study adopts Likert's 5 point scaling technique to assess the level of opinion of the respondents on the various aspects relating to the study. The questionnaire consists of two parts. Part 1 focuses on the demographic profile of respondents and the part 2 relates to the factors influencing OCB, OCB and Intention to Stay.

Demographic factors: Demographics are the personal characteristics of the population. This research considers 7 demographic factors namely; Bank Type, Age of the respondents, Gender, Marital Status, Educational Qualification, Designation and Experience.

Measures used for the study: To assess the study variables namely Job content, Organizational Justice (comprising of Distributive Justice, Procedural Justice, Interactional Justice), Formal mentoring support, Career growth prospects, Organizational climate, HRM practices, OCB and Intention to stay, the study adopted a few of the measures proposed by researchers and a few measures were modified to suit the Indian Context and Banking Sector. Various measures have adopted from different instruments of various authors. Brief details about measures used for the study is explained below.

Job Content: Job content describes the characteristics and factors that are directly related to individual's job, the responsibilities and opportunities provided. The study adopts a few of the items from the Job Aspect measure proposed by Piyali Ghosh et al. (2012) and a few from literature reviews. The measure has 9 items.

Organizational Justice: Organizational Justice is employee's evaluation about the ethical, moral conduct and fairness at the workplace. This study views Organizational Justice in three dimensions namely; Distributive Justice, Procedural Justice and Interactional Justice. The study uses the 29 item measure proposed by Niehoff & Moorman (1993). Distributive Justice refers to the equality associated with decision

regarding the distribution of outcomes and resources. The outcomes or resources distributed may be tangible (*e.g.*, pay) or intangible (*e.g.*, praise). Procedural Justice is the fairness of the procedures and processes that lead to outcomes. Interactional Justice refers to the way one employee treats another.

Formal Mentoring support: Formal Mentoring is the support provided for the less experienced employees for personal and professional growth and development by a more experienced person. The study adopts the 5 item scale proposed by Azman, Michael and Norshima (2011).

Career Growth Prospects: Career Growth Prospects refers to the opportunities available for an employee to advance in his career with increased responsibilities and challenging assignments. The study adopts 6 items from the scale proposed by Milliman (1992).

Organizational Climate: Organizational Climate is the perceptions of individuals regarding their work situation, characteristics of the organization and the nature of relationship with his co-workers. The study adopts the 11 item scale extracted from the research article by Nazari et al. (2011).

Human Recourse Management Practice: All activities associated with the management of human capital and aligning the human capital towards fulfillment of organizational goals. The study adopts the 12 item scale proposed by Rhoades and Eisenberger (2002).

Organizational Citizenship Behaviour: Organizational Citizenship Behaviour is a system of cooperation and people's willingness to contribute, beyond the influence of the formal incentive mechanism. The study uses the same proposed by Organ (1990).

Intention to Stay: Intention to Stay mirrors the employee's level of commitment to his organization and the willingness to remain employed. The study adopts the 6 item scale proposed by Bernsen et al. (2009).

Following this, the study ensures Content validity. Mason and Bramble (1989) defined validity as the degree to which a test measures what it is supposed to measure. According to Cronbach and Meehl (1955) the researchers need to check Content validity and Criterion oriented validity to ensure that the construct and sub constructs represented the domain areas promptly.

3.4.2 Content validity

Cronbach (1971) and Rogers (1995) state that, Content validity measure the degree to which items in an instrument reflected the content universe to which the instrument would be generalized. One of the common methods to establish the content validity is through discussion and arriving at consensus with experts or panel members (Hambleton and Rogers, 1991; Lynn, 1986; Bohrnstedt, 1983; Tittle, 1982; Lawshe, 1975; Guion, 1978). Panel members identify that the questions in that construct related to that construct or not and tend to measure the characteristics of that construct or not.

The present study ensures content validity using three practitioners and two academicians as panel members. The panel suggested rewording of two items in the questionnaire. In the construct Formal Mentoring Support item "Guidance for achieving my career goals are provided" is reworded as "Specific guidance for achieving my career goals are provided". Further in the construct Career Growth Prospects item "I will be promoted within this firm" is reworded as "It is likely that I will be promoted within this firm". The items are revised based on the feedback provided by the panel thus strengthening the constructs and thereby ensuring content validity.

3.4.3 Reliability of the constructs

Reliability of the instrument is ensured after ensuring the content validity of the constructs, sequence of the questions in each construct and the inference of the questions through literature review and expert opinion. This needed empirical data. Consequently, a pilot study was conducted, a sample of fifty respondents from five banks comprising 3 public sectors and 2 private sectors are contacted to validate the instrument. Since, quality of respondents is likely to be a prime important factor in an empirical study care is taken in choosing the respondents for the research. Based on the recommendations from academicians and industry practitioners, employees in the capacity of Manager, Senior Manager, Assistant Manager and front line staff are included in the sample. Data is collected during December 2014.

Reliability is the degree to which measurements are free from error and therefore yield consistent results. According to Carmines and Zeller (1979) reliability concerns the extent to which an experiment, test or any measuring procedure yields the same results on

repeated trials. As a pre-requisite for reliability analysis Churchill (1979) highlights the need to purify the items. Purification of constructs is normally done by observing the corrected item total correlation (CITC) score of each item of a construct and deleting items with a score of less than zero and any item that produces a considerable or sudden drop in CITC scores (Cronbach, 1951). The CITC score is a good indicator of how well each item contributes to the internal consistency of a particular construct as measured by the Cronbach's Alpha (α) coefficient. The low CITC score (below 0.5) suggests that some items did not share equally in the common core and therefore needs elimination. Further, following the guidelines established by Nunnally (1978) this research considers an Alpha score of higher than 0.70 as acceptable. Table 3.1 reveals that all constructs satisfies the guidelines established by Nunnally (1978), thus ensuring the reliability of the constructs.

Table 3.1. Reliability of Constructs

S.No	Constructs	No. of Items	Reliability (Cronbach's Alpha)
1	Job Content (JC)	9	0.921
2	Distributive Justice (DS)	5	0.816
3	Procedural Justice (PR)	6	0.844
4	Interactional justice (IN)	9	0.775
5	Formal mentoring support (FS)	5	0.722
6	Career Growth Prospects (CG)	6	0.784
7	Organizational Climate (OC)	11	0.815
8	Human Resource Management Practices (HRM)	12	0.899
9	Organizational Citizenship Behaviour (OCB)	24	0.957
10	Intention to stay (IS)	6	0.740

3.4.4 Construct Validity

Construct validation measures how well the test or measure reflects the target construct (Cronbach and Meehl, 1955) and is ensured through convergent and discriminant validity (Fornell and Larcker, 1981). Convergent validity measures the extent to which each item in a construct correlates with other items in the same construct. According to Chau (1997) high inter-item correlation within each construct indicates convergent validity.

The convergent validity for each construct is determined by checking the average variance extracted (AVE) values and their correlation coefficients. The AVE represents the proportion of the overall variance in the items of a latent construct that is explained by the latent construct itself. AVE represents the average squared loading (i.e. average communality) of the items constituting a latent construct. A latent construct is deemed to have acceptable convergent validity if it had an AVE greater than 0.5. Convergent validity is ensured using Partial Least Square Method (PLS) a Structural Equation Modeling (SEM) technique (Bagozzi and Fornell, 1982). Convergent validity is assessed by checking whether the AVE of each construct is greater than 50 percent and composite reliability greater than 70 percent (Rossiter 2002; Diamantopoulos and Winklhofer 2001; Fornell and Larcker, 1981).

Following the above guidelines the convergent validity of the constructs pertaining to the study is ensured. Table 3.2 portrays the convergent validity scores i.e., AVE and composite reliability values for all the constructs. Table 3.2 reveals that all the constructs have their AVE values greater than or equal to 0.5 and composite reliability greater than 70 percent thereby revealing no problems of convergent validity.

Table 3.2. Convergent Validity of the constructs

S.No	Constructs	AVE	Composite Reliability
1	Job Content (JC)	0.615	0.934
2	Distributive Justice (DS)	0.881	0.874
3	Procedural Justice (PR)	0.864	0.886
4	Interactional Justice (IN)	0.822	0.838
5	Formal Mentoring Support (FS)	0.629	0.738
6	Career Growth Prospects (CG)	0.725	0.850
7	Organizational Climate (OC)	0.606	0.774
8	Human Resource Management Practices (HRM)	0.787	0.916
9	Organizational Citizenship Behaviour (OCB)	0.816	0.962
10	Intention to Stay (IS)	0.539	0.824

After ensuring convergent validity, discriminant validity of the constructs is ensured. Discriminant validity measures the extent to which the items of a construct did not correlate well with items of other constructs and shares more variance with its own items than with other constructs (Chin 1998). Chau (1996; 1997) claims a construct to possess discriminant validity when an item correlates more highly with items intended to measure the same construct than with items used to measure a different construct. Sufficient discriminant validity exists when the square root of the AVE of a construct exceeds the correlations between the latent construct and all other latent constructs (Fornell and Larcker 1981; Gefen et al., 2000). Following the above guidelines the square roots of the AVE values of the latent constructs are calculated for the constructs. The values are compared with the absolute value of the construct correlation between the latent constructs. As detailed in Table 3.3 the inter-correlations and square roots of AVE's reflected no problems with discriminant validity.

Table 3.3: **Discriminant measure of the constructs**

Variables	JC	DS	PR	IN	FS	CG	OC	HRM	OCB	IS
JC	**0.784**									
DS	0.770	**0.938**								
PR	0.730	0.825	**0.929**							
IN	0.624	0.824	0.867	**0.907**						
FS	0.051	0.031	0.069	0.263	**0.793**					
CG	0.616	0.707	0.697	0.645	0.121	**0.851**				
OC	0.422	0.329	0.407	0.431	0.419	0.307	**0.778**			
HRM	0.739	0.745	0.817	0.675	0.014	0.690	0.385	**0.887**		
OCB	0.703	0.847	0.783	0.759	0.028	0.684	0.340	0.756	**0.903**	
IS	0.410	0.423	0.482	0.402	0.098	0.396	0.328	0.620	0.436	**0.734**

3.4.5 Criterion Validity

Criterion related validity is the degree to which a measurement instrument can predict a variable that is designated as a criterion. Coefficient of determination (R^2) is the percentage of the total variation in the dependent variable explained by the independent variables. In order to examine criterion validity, the coefficient of determination is analysed and tested whether it is greater than 25% (Heiman, 1998). Table 3.4 portrays the R^2 value of the constructs OCB and Intention to Stay. Since the R^2 value of the Construct OCB is greater than 25%, criterion validity is ensured. But the R^2 value of the construct Intention to Stay is less than 25%, since OCB is one among the factors that influences an employee to stay in the organization. Few other factors that are likely to influence Intention to Stay are Employee Engagement, Job Satisfaction, Organizational Commitment, Organizational Culture and values, Job Enrichment and Job Autonomy.

Table 3.4. Criterion Validity of the constructs

Construct	R^2 value
Organizational Citizenship Behaviour	0.671
Intention to Stay	0.186

3.5 SAMPLING AND TARGET POPULATION

According to Malhotra and Birks, (2003) researchers should define the target population in terms of elements, sampling units, extent and time. An element is an object from which information is desired. In survey strategy the element is usually the respondent. A sampling unit is a unit that contains the element that is available for selection at some stage of the sampling process. Extent refers to the geographical boundaries of the research and time refers to the period under consideration.

The objective of the study is to identify the factors influencing OCB and the impact of OCB on Intention to Stay among the bank employees. As discussed in chapter I, the banking sector is the back bone of Indian economy, with the growth of the economy, the service sector more specifically the banking industry has been gaining movement in the past two decades. The increasing completion has resulted in the need for increased customer service; therefore need arises on the part of the employees to put in exact role

and behavioural activities beyond their specified job description in order to keep their customers satisfied. Hence OCB among the bank employees has taken a vital role; therefore the employees belonging to banking industry in India comprise the respondents for the study.

Coimbatore is a hub for engineering industries, textiles, education, hospitality and medical services, therefore there is an increase in baking activities and services in the last 3 decades. Hence as a representation of the banking sector in India the study identifies its sampling frame as those banks which are operating in Coimbatore City. The study considers only Public and Private sectors banks in Coimbatore city; co-operative and foreign banks are excluded from the study. As per the Coimbatore District Bank Employee Association, there are about 110 public sector branches and 40 private sector branches in Coimbatore city. The study includes 40 branches from the public sector selected through systematic random sampling and all the 40 branches from the private sector (census sampling). 350 respondents are selected at random in each sector (public and private sector banks) across all levels and questionnaires are administered to them. 344 and 330 filled in responses are obtained from the public sector and private sector branches respectively. Therefore the sample size for the study is 674 respondents yielding a response rate of 96.3%

Element	Manager, Senior Manager, Assistant Manager and front Office staffs in the banks were chosen for the study
Sampling unit	Banking Industry
Extent	Public and Private Sector Banks registered with CDBEA (Coimbatore District Bank Employee Association)
Time	February 2015 - August 2015

3.6 DATA COLLECTION

According to Bernard (2002) data collection is crucial in research, as the data is meant to contribute to a better understanding of a theoretical framework. Both primary and secondary data is collected for the study. The respondents are contacted in person and the importance of the study is explained to them before administering the questionnaire. Sufficient time is given to the respondents for filling up the questionnaire.

While collecting the questionnaires back it is ensured that all the questions are answered and no question is left unanswered. The entire data is consolidated and used for the analysis. Secondary data is collected from journals, books, survey reports, newspapers and business magazines.

3.7 TOOLS USED FOR ANALYSIS

The collected data is analyzed using the following tools and techniques in line with the objectives of the study.

Percentage analysis: The percentage analysis is used to express the percentage of respondents falling under each category. It describes the total frequency of respondents/responses in percent format. Percentage analysis is used to portray demographic profile of the respondents.

Descriptive statistics: Descriptive Statistics is carried out to examine the perceived level of importance of the dimensions of factors influencing OCB namely Job Content, Distributive Justice, Procedural Justice, Interactional Justice, Formal Mentoring Support, Career Growth Prospects, Organizational Climate, HRM practices, Organizational Citizenship Behaviour and Intention to Stay.

Chi-square: Chi square test is done to find the association between the level of Organizational Citizenship Behaviour and demographic factors.

ANOVA: The analysis of variance is a powerful and common statistical procedure in the social sciences. ANOVA is used to test the significant differences in the mean values of more than two groups. It is used to test whether significant differences exist in the mean perception of respondents of varied demographic profile with regard to the study variables.

T test: t-test is carried out to examine significant differences in the perception of respondents across public and private banks, Gender and Marital status among the study variables.

Correlation Analysis: Correlation analysis measures the relationship between two items. The resulting value called the "correlation co-efficient" shows the extent to which changes in one item will result in changes in other item. Correlation analysis to test the

strength of relationship among the factors influencing Organizational Citizenship Behaviour and Organizational Citizenship Behaviour; and Organizational Citizenship Behaviour and Intention to Stay. Correlation analysis is performed on the responses given by employees working in private sector, public sector, and the entire sample of respondents.

Regression Analysis: Regression analysis is a technique for modeling and analysis of several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps to understand how the typical value of the dependent variable changes when any one of the independent variable is varied, while the other independent variables are fixed. Two regression analysis is performed in the study.

- Factors influencing OCB as independent variable and OCB as dependent variable with the responses given by employees working in public sector banks, private sector banks and the entire 674 respondents.

- OCB as independent variable and Intention to stay as the dependent variable with the responses given by employees working in public sector banks, private sector banks and the entire 674 respondents.

Regression for sub groups: Regression for sub-groups is performed to identify the extent to which the identified factors that has a significant influence on OCB with regard to the sub factors of the demographic profile of the respondents namely type of bank, age, gender, marital status, experience, education and designation.

Path Modeling: The hypotheses are tested using Structural Equation Modelling (SEM) technique. SEM enables researchers to answer a set of interrelated research questions in a single, systematic and comprehensive analysis by modelling the relationship between multiple and dependent constructs simultaneously. SEM assesses the structural model, the assumed causation among a set of dependent and independent constructs and evaluates the measurement model loading of observed items (measurements) on their expected latent (constructs). The result is hence a more rigorous analysis of the proposed research model and Gefen et al. (2000) views it as a better methodological assessment tool. Hence, this study uses Smart PLS software to perform the analysis.

Discriminant analysis: Discriminant function analysis is a statistical analysis to predict a categorical dependent variable (called a grouping variable) by one or more continuous or binary independent variables (called predictor variables). It is mainly to use to determine which variables discriminate between two or more naturally occurring groups. This study uses Discriminant analysis to identify the factors that discriminate employees with high OCB from those with low OCB.

3.8 CONCLUDING REMARKS

The research study is descriptive in nature and adopts survey strategy. Content validity, Reliability of the constructs, Construct and Criterion validity for each constructs is performed. The sampling frame constitutes the banks in Coimbatore city. The study adopts systematic random sampling with regard to the selection of banks in public sector and census sampling for private sector banks. The tools and techniques used for the analysis are discussed. The following chapter presents the results of the data analysis.