



Comparison of GRA Method with Other Assessment Techniques in Bancassurance

Santosh Karmani

SST College of Arts and Commerce, Maharashtra, India.

*Corresponding author Email: santoshkarmani@sstcollege.edu.in

Abstract: *Bancassurance. A bank and an insurance provider will enter into a "bancassurance" agreement so that the insurance provider can market to the bank's clients. The insurance provider gains from higher sales and a broader customer base without having to hire more salespeople. The marketing of insurance policies through banks is known as bancassurance. Cooperation between banks and insurance firms allows the bank to market its customers the insurance products of the associated insurance company. The Reserve Bank of India, which oversees the banking system, recognized that it was important for banks to diversify their business models and gave them permission to enter the insurance industry. In order for the insurance provider to market to the bank's customers, the bank another insurance provider will enter into a "bancassurance" agreement. More sales and a larger customer base benefit the insurance provider without the need to add more salesmen. Bancassurance refers to the sale of insurance products through banks. Banks and insurance companies can promote each other's insurance products to customers through a partnership between the two parties. Since it was crucial for banks to diversify their business models, the Reserve Bank of India, which regulates the banking system, approved their entry into the insurance sector. GRA (Gray Relational Analysis) Method, Branches, Employees, Private loans, Deposits, Customers, Life insurance premiums Alternatives Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank. Branches, Employees, Private loans, Deposits, Customers, and Life insurance premiums. Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank. Private loans got the first rank whereas Deposits has the lowest rank.*

Keywords: *Antecedents to Buying Intentions, Indian Insurance Sector, Gray Relational Analysis (GRA).*

1. Introduction

Banking and insurance have become more integrated as a result of financial innovation and financial deregulation, and banks selling insurance products are now standard. The insurance market in India is huge and untapped. Bancassurance has been cited as one of India's appealing distribution channels as one of the new channels that have arisen to address the market's variety. The distribution channel for bancassurance makes the most of banks' geographic reach and client penetration across all customer categories. Due to banks' extensive branch networks, high-quality services, and technological capabilities, bancassurance has become essential. A sizable market is created when the operations of banks and insurance companies are integrated. France is where the idea of bancassurance first emerged, and it has gained popularity in Europe, Canada, and the US. Bancassurance is a contract between banks and insurance providers. A one-stop shop for numerous banking and insurance services, it is an agreement to market insurance products through the bank's distribution channel. Referring to the sale of insurance products via banking channels. One of the most significant changes to the global economy is the financial markets' rapid expansion and globalization. This development has far-reaching effects on not just the financial markets but also the development and course of international trade. The entire structure and operation of the financial markets have evolved as a result of financial regulation and innovation. Major improvements are being made to the environment for financial services. Due to escalating competitive pressures and the challenge of preserving product differentiation, financial institutions are looking for more effective distribution networks. Due to them, there is now price competition, lower marketing expenses, more distinct products, and widespread usage of new channels. It should come as no surprise that distribution has grown to be a significant component of the marketing plan for the sale of financial products. It is playing a more and bigger part in marketing factors and has emerged as a key source of competitive advantage. The next step for bancassurance in the twenty-first century is to establish international financial markets, according to researchers and regulators. Due to risk-transfer spillovers between the banking and insurance sectors, some studies demonstrate that not only interbank ties but also relationships between banks and insurance companies are crucial for determining financial instability. A lot of disc-discussions have been generated about economies of scale, economies of scope, risk transfer, and diversification as a result of the development of bancassurance markets within or between nations or regions. The top 125 retail banking organizations worldwide are examined by Finaccord Ltd, which so provides an overview of these sample banks' global bancassurance strategy. Numerous service providers, including those in the life insurance, finance, and travel industries, market their products through unaffiliated service intermediaries. Typically, the service provider anticipates that these intermediaries will take part in its promotional campaign

to boost reproductivity sales through advertising, public relations, direct marketing, or aggressive service staff selling. The importance of promotional actions at the intermediary level increases if the product is more complicated, sophisticated, or expensive.

2. Antecedents To Buying Intentions

Customers in India are increasingly looking for one-stop shopping for all of their needs, and the financial services sector is paying more attention to cross-selling. As 83 percent of customers have accounts with many banks, cross-selling is difficult.

Perceived Value: The trade-off between the benefits anticipated to be obtained and the trade-offs made by the client is what determines perceived value. As a predictor of customers' future intentions and a better predictor of the value of service choice than service quality, service quality is recognized as a characteristic that precedes value and leads to positive repurchase intention. Perceived value is viewed as an important aspect of customer satisfaction and is therefore considered a variable for the study. Perceived value has been found in earlier studies as a significant antecedent of satisfaction and purchase intention.

Image Conflict: The reputation and image of banks are heavily influenced by their dependability. Positive customer opinion of the bank's image has an impact on the client's cross-purchase intentions. Cross-purchase intentions are revealed to be adversely correlated with image dissonance. The reason it is a part of the study is that image inconsistencies affect and predict customer cross-buying intentions.

Cross-Buying Intention: Cross-selling is linked to increased rates of client loyalty, revenue generation, and retention. The six elements that influence the cross-purchasing of insurance goods from banks are brand, service facility, personal relationship, paying role, experience, and trust. In Hong Kong's retail banking sector, studies have revealed a favorable correlation between client loyalty and cross-purchase intentions. Customer pleasure, perceived value, and service quality all precede behavioral intentions. Positive behavioral motives included a willingness to pay more, loyalty, switching intents, and responsiveness (extrinsic and intrinsic). Also, prior studies have found a strong correlation between consumer purchase intent and service quality. Repurchase intentions, purchase intentions, and cross-purchase intentions are all examples of behavioral intentions.

Satisfaction: Brand loyalty is a precursor to customer satisfaction, which is defined as "the consumer's response to fulfillment, the degree to which fulfillment is pleasurable or unpleasant". Customer satisfaction is a summary of consumers' post-purchase responses to a global firm and is analyzed in relation to rivals. Customer loyalty is significantly influenced by satisfaction, which also moderates the association between service quality and behavior in all outcomes. The customer's assessment of the value or benefit they received from a transaction or connection is known as satisfaction. A tool for improving service quality and client value is customer satisfaction. Businesses are there to serve their clients, and those who do so successfully are more profitable. Consumer happiness and brand loyalty are not strongly correlated. Customer satisfaction is the emotional state that a customer has after making a purchase, making various evaluations of the purchase, and experiencing positive or negative emotions that directly affect satisfaction. Satisfaction also influences customers' intentions to make additional purchases, so it is important to research.



FIGURE 1. Proposed framework

Service Quality: At both the transactional and global levels, service quality was viewed as a construct that affected consumer happiness. Customer pleasure is a prerequisite for high service quality. Customer expectations and their assessment of the service's actual performance are compared using the concept of service quality. According to Gronroos, the level of service a customer receives depends on both their expectations and the actual service they receive. An important topic of research is the distinction between the customer's perspective and the service provider's perspective on service quality.

Customer Trust: Customer interactions depend on trust, and services like insurance, which are high-risk, uncertain, and vulnerable, require a high level of trust. Trust generates happiness, loyalty, a larger portion of the wallet, and favorable word of mouth. Customers' personal experiences, service quality, value, brand reputation, word-of-mouth, etc. all contribute to their level of trust. Consumer trust has a big impact on how cross-buying and cross-buying intentions are related. Cross-buying has a strong foundation in trust, which loyalty programs help to build. Consumers trust banks because of the security and privacy they offer. According to studies, perceptions about consumer behavior, decisions, and risk-benefit analysis have a beneficial impact on customer trust. Research have shown that trust has a favorable impact on client retention. Trust is an important factor influencing the decision of customers of service organisations, especially when the service requires a long-term commitment and the services cannot be validated before consumption. Due to the accumulation of several prior positive experiences, trust develops over time and is demonstrated through recurrent buying patterns. Loyalty and vocal advocacy produce trust, which is the main factor in the study.

3. Indian Insurance Sector

One of the most important changes in India's retail financial services sector has been the rise and spread of bancassurance. The insurance market in India is expanding quickly. Bancassurance is being considered by banks and insurance providers as the solution to the future returns of the Indian retail finance industry. Almost 120 million people are customers of Indian banks. The prominence of rural bank branches in sales operations and the proximity of bank workers to consumers in rural areas are distinguishing characteristics. In order to seize this new chance, numerous banks have formed partnerships with top insurance providers worldwide. The Life Insurance Corporation of India and the General Insurance Corporation of India are the two state-run insurers that conduct business in the Indian insurance market, respectively. Legally, a business cannot operate a competing life and non-life insurance business.

4. Gray Relational Analysis (GRA)

The GRA approach became at the start developed using Deng and efficaciously applied to multi-attribute selection-making issues as a part of the gray gadget concept, GRA is suitable for fixing issues of complex relationships among Several factors in the current literature and variables. Various A kind of GRA technique is proposed for this have a look at it, and we introduce an easy and green GRA approach. Gray Relational Analysis (GRA) is an MCDM that helps with problems a tool and was First proposed with the aid of Deng. It has been correctly utilized in fixing diverse MCTM problems. GRA two Complexity between factors and variables Ideal for solving problems with contacts. In solving various MCTMs It has effectively implemented troubles consisting of worker choice. Gray Correlative Analysis (GRA) and techniques for regulation alternatives through simulating the proper solution Both techniques yielded the same gold standard The parameter level i.e. 10µm particle size, 5% reinforcement, 8mm diameter device, 710rpm velocity, 20mm/min. To become aware of the significance of the outcomes of 139.48N in-feed pressure, sixty-three.92N cross-feed force, forty-two.6N thrust force, sixty-eight. 96oC temperature and zero.198µm floor roughness, each procedure on response parameters the impact of the variable is done. Although the parameters are encouraging parameters, Speed became a less significant factor. GRA (Gray Correlation Analysis) version. First at the grid, the neighbor of each charge Country and their one-dimensional resonance Statistics by comparing indicators Skills count. 1D-LBP After receiving the signals, in those indicators Statistical settlements are calculated. These functions are GRA are classified using A perusal of the literature well-known shows that no such look at exists. The 1D-LBP technique changed into recently implemented Characteristics from vibration alerts First time to extract. Additionally, it is vibration signals in GRA Used for the first time in the category. The Intuition mixed with vague synthesis The GRA method is a fuzzy set of decision makers Since considering information, many standards of achievement for decision-making problems carry significant risk. Therefore, in fate, this method can be applied to handle Job Evaluation, Dealer Selection, Factory Location manufacturing structures, and so on Inclusive multi-criteria decision-making Uncertainty in issues of areas of control choice issues. GRA first interprets the overall comparative rankings Performance of alternatives. According to this called ash relative formation. According to these scenarios, a Super target sequence is described. then, evaluate all Gary correlation coefficients in rows and A satisfactory target collection is calculated finally this gray contact is based on the coefficients, the perfect target sequence, and each variant sequence of gray contact between the size is calculated. GRA proposes an incorporated GRA for the distribution network and AHP technique reconstruction to plan hydropower technology. Particle reinforced stem Electric discharge apparatus GRA to improve the method Provide a sample fabric. Proposes GRA estimate the relative impact of fuel fee, gross domestic product variety motors, and vehicle kilometers traveled on electricity growth. Taiwan uses the Fuzzy-GRA technique to assess the economic overall performance of box lines. Proposes an incorporated GRA approach for provider evaluation of environmental know-how management abilities. Examine and rank the energy performance of office homes and the usage of GRA. Gray correlation analysis (GRA) is commonly used in Asia. It is an outcome evaluation version, which on

an absolute basis Similarity between rows or measuring diploma of distinction degree of dating. The motive of GRA is to have a look at elements that affect structures. Gray Relational Analysis (GRA) is proposed as a way that may for sequences of the type Measure the correlation between facts evaluation technique or geometric pattern. The reason for the GRA technique is primarily based on the degree of similarity with the interelement Degree of relationship. GRA few studies have used Oil pipelines in gas wells of environmental factors on corrosion to Assess the impact, and the principle of application of GRA Factors identified. with many overall performance characteristics, Electro Discharge machining method GRA united states of America for an expatriate task the usage of GRA using a mixed GRA and technique for included water resource protection assessment in Beijing. Decided the pleasant layout aggregate of a product from elements to suit a given product picture represented with the aid of a phrase pair the usage of GRA, introduced GRA, and proposed a brand new struggle reconstruction method of trust functions. Electrocardiogram (ECG) Heart Rate Discriminator proposed a technique to degree frequency components in distinct ECG beats the usage of GRA. GRA changed into proposed for prediction-integrated circuit outputs. (GRA) is A systems reference/aspirational state (desired) factors and others for compared (alternative) factors Used to show the relationship between When a systems approach examines the degree of association for two alternatives using the distance measure between? For the GRA model Concepts with the computational process are briefly reviewed. GRA is a choice-making technique based totally on the grey gadget principle first developed by way of Deng in the gray principle, wherein black represents a gadget with incomplete statistics, while a white gadget represents whole facts. For eukaryotic and Prokaryotic PPI networks of species, we use C-GRAAL to align PPI networks between species, and the subsequent renovations are great Connected and functional topology Technically aligned areas We show that We reveal. We are efficiently validating more than one prediction Across biological specializations Next to change Use alignments organisms. Furthermore, we display that PPI in humans to align networks C-GRAAL can be used pathogens, host, from network topology Pathogen with proteins It can sense patterns of interactions by myself. Traditional GRA techniques fail to cope with incomplete weight information Intuition above with ambiguous MADM issues a thrilling and vital research topic is a way to derive characteristic weights from each given intuitive fuzzy record and incompletely recognized characteristic weight statistics based on the fundamental best of the traditional GRA technique. For this reason, intuition is ambiguous to fix MADM problems GRA to develop a technique The concept of expanded statistics, wherein facts approximately characteristic weights are incompletely regarded and attribute values.

5. Result And Discussion

TABLE 1. Bancassurance

	Deutsche Bank	Kommerz bank	Krediet bank	Volksbanken bank
Branches	91.08	69.53	19.15	22.05
Employees	89.12	72.97	33.69	37.3
Private loans	94.08	89.58	49.18	23.1
Deposits	73.17	68.28	34.6	47.59
Customers	63.33	86.41	27.96	28.89
Life insurance premiums	87.14	75.62	42.12	38.15

Table 1 shows the Bancassurance for Grey relational analysis. Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank and Branches, Employees, Private loans, Deposits, Customers, and Life insurance premiums in this Alternatives or Evaluation value.

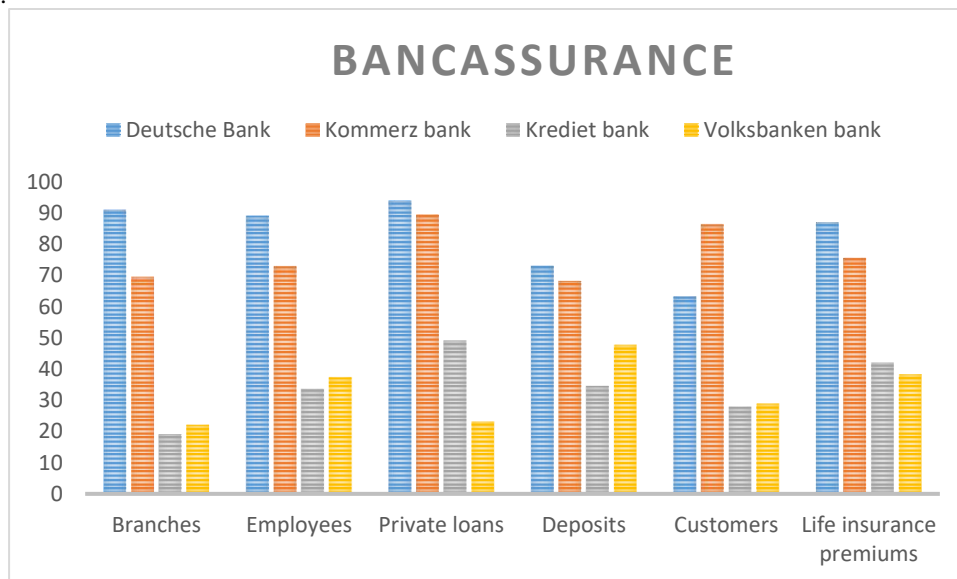


FIGURE 2. Bancassurance

Figure 2 shows the Bancassurance for Grey relational analysis. Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank and Branches, Employees, Private loans, Deposits, Customers, and Life insurance premiums in this Alternatives or Evaluation value.

TABLE 2. Normalized Data

Normalized Data			
Deutsche Bank	Kommerz bank	Krediet bank	Volksbanken bank
0.902439024	0.058685446	1.4151744	1
0.838699187	0.220187793	0.7299717	0.402897
1	1	0	0.958888
0.32	0	0.6870877	0
0	0.851173709	1	0.732185
0.774308943	0.344600939	0.332705	0.369616

Table 2 shows the Normalized data for Bancassurance. Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank and Branches, Employees, Private loans, Deposits, Customers, and Life insurance premiums it is also Normalized value.

TABLE 3. Deviation Sequence

Deviation sequence			
Deutsche Bank	Kommerz bank	Krediet bank	Volksbanken bank
0.09756	0.9413	0	0
0.1613	0.7798	0.685203	0.5971
0	0	1.415174	0.0411
0.68	1	0.728087	1
1	0.1488	0.415174	0.2678
0.22569	0.6554	1.082469	0.6304

Table 3 shows the Deviation sequence for Bancassurance. Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank and Branches, Employees, Private loans, Deposits, Customers, and Life insurance premiums it is also the Maximum or Deviation sequence value.

TABLE 4. Grey relation Coefficient

Grey relation coefficient			
Deutsche Bank	Kommerz bank	Krediet bank	Volksbanken bank
0.83673469	0.346905537	1	1
0.75608557	0.390682318	0.508035865	0.4557459
1	1	0.333333333	0.9240232
0.42372881	0.333333333	0.49286066	0.3333333
0.33333333	0.770622287	0.630220357	0.6511984
0.68899843	0.432750914	0.395287614	0.4423277

Table 4 shows the Grey relation coefficient for Bancassurance. Deutsche Bank, Kommerz bank, Krediet bank, Volksbanken bank and Branches, Employees, Private loans, Deposits, Customers, and Life insurance premiums it is also Calculated the Maximum and minimum Value.

TABLE 5. Result of Final GRG Rank

	GRG	Rank
Branches	0.79591	2
Employees	0.527637	4
Private loans	0.814339	1
Deposits	0.395814	6
Customers	0.596344	3
Life insurance premiums	0.489841	5

Table 5 shows the result of the final GRG Rank of GRA for Bancassurance. Private loans are showing the highest value for GRG Rank and Branches are showing the lowest value.

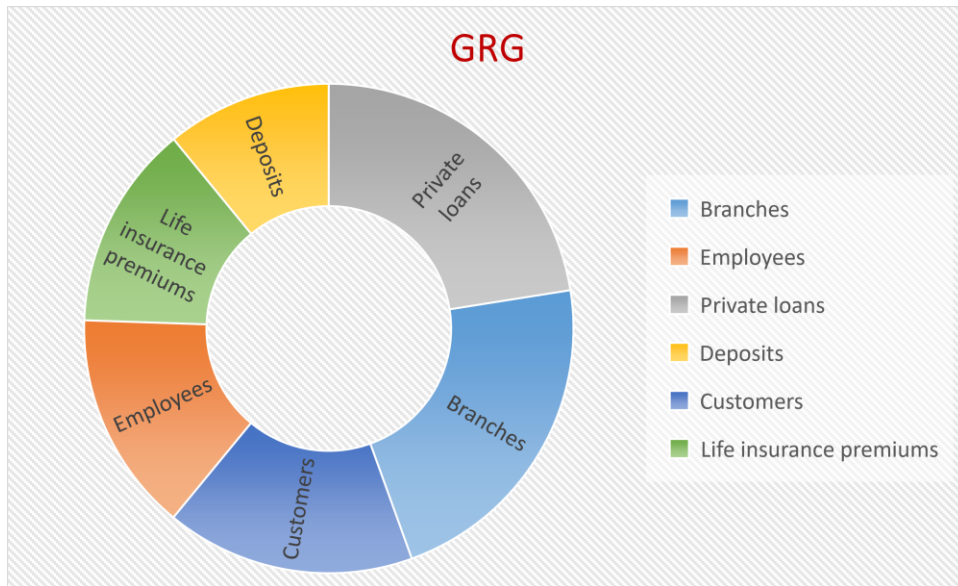


FIGURE 3. GRG

Figure 3 shows the result of the final GRG Rank of GRA for Bancassurance. Private loans are showing the highest value for GRG Rank and Branches are showing the lowest value.



FIGURE 4. Shown the Rank

Figure 4 shows the Rank of GRA for Bancassurance. Private loans got the first rank whereas Deposits has the lowest rank.

6. Conclusion

Financial services deregulation and consolidation have created new revenue streams for banks, including the bancassurance channel. The idea of bancassurance was first introduced in European nations, and it has since spread throughout East Asia. The financial services industry has expanded recently in India, one of the largest economies. To order to analyze the variables affecting bank customers' cross-purchasing intentions, notably for insurance products via the bancassurance channel, a framework is therefore presented. Many significant sectors, including health and social security, are actively debating changes to public rationing, types and scope of coverage, regulated pricing, and cross-subsidization of public insurance, as well as its replacement or addition to private insurance. It is important not to underestimate the level of uncertainty around insurance pricing and values connected with big system replacements currently being discussed in more developed nations, according to the experience of substantial and abrupt insurance system reform in CEE countries. The degree of "change risk" can be at least defined by modeling or simulating a variety of concurrent and interdependent organizational change factors, such as political and private incentive change. The goal of this study is to find out how much Indonesian society values various characteristics of Islamic banks. Rasch analysis was used to measure the preference qualities, and the findings of the instrumental analysis

demonstrated that it is a reliable measuring technique that is well suited to the requirements. More agreement between the actual performance of a characteristic and society's expectations will eventually follow an increase in society's preference for that attribute.

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