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Analysing the Challenges of Insurance Companies in Pakistan While Co-Creating the Service Value

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Abstract
Businesses need innovation and innovation requires output from outside the business, to create something innovative and special for their customers. This creates a prerequisite to do co-creation. Co-creation let those businesses collaborate with external stakeholders to gather and generate fresh ideas. This study focuses on co-creation and its challenges in Pakistani Insurance companies. This study aimed to do a thorough research on those challenges, to present them in a structural model on priority basis and to categorize them on the basis of their driving and dependence power. This is thorough study based on literature review and mixed method. Data was collected by 18 experts on panel (respondents) selected on the pre-determined criteria. This study contributed a comprehensive list of 28 challenges faced by Pakistani Insurance companies, found out using literature review method, confirmed by the panel of experts (17 respondents) and then were analyzed by using Interpretive Structural Modelling and MICMAC. Results show that Proper Planning (1) is the most important one and dependent on linkage ones. Study has practical implications for researchers, insurance businesses, and policy makers and theoretical implications to fill the literature gap. Along with the contributions and implications, this study, as other studies, has some limitations as well. Those limitations have three different angles i.e., methodological limitations, data limitations and resources limitations. Future researchers can use our recommendations to proceed further in research and to overcome the limitations.
Keywords: insurance companies, innovations, structural model

1. Introduction

Businesses don't have an option to run out of ideas! They need to rely on ideas, solutions to the problems from fresh angles and provide customers what they want, in order to be successful globally (Jansman et al., 2022). This need requires innovation and this innovation requires output from outside the business, to create something innovative and special for their customers. Normal and traditional production patterns or procedures may not be able to open up new doors for innovation so here comes a need to have the input of actual stakeholders and the end user of product or service i.e., customers. Customers are the most important stakeholder of a business that matters the most, because a business's ultimate source of profit is customer, so we can say that customer is a chief of one's business. Involving input of outsiders in the process of innovation/ideation and process development is called co-creation (Payne et al., 2008). Usually new products and services are like the secret recipes for businesses but co-creation let those businesses collaborate with external stakeholders to gather and generate fresh ideas. It also helps to bring answers and solutions to the problems that a business can't generate in-house. Not only this, but this approach also aims to come away with better products and services, according to the need and demand of the customers. We can say that co-creation is a source of generating value for customers (Campos et al., 2018). Value means the perception of customer about the worth and benefits of product or service over what he/she paid. Different service industries and companies are co-creating their services to create value for their customers. A well-designed co-creation processes have led them to create value all across the company as well as customers when it comes to their service (Edvardsson et al., 2011). We have several examples of co-creation in service industry e.g., DHL (Kunz et al., 2021). The parcelcopter is a famous result of DHL's co-creation. They asked their customers, to give suggestions to improve DHL's supply chain and to make their services more valuable. Results came up in the form of parcelcopter (a drone delivery service) and an augmented reality application that helps to improve inventory. Another example of co-creation is LEGO Ideas, where the fans submit or generate ideas for new LEGO kits (Fagerstrøm et al., 2020). American Airlines have launched an app and the advantages awards map, which shows customers geographically, where can they fly with their loyalty points. This idea was totally a suggestion and a request by the super-elite flyers of American Airline, for brand development and improving service value (Campos et al., 2018). So, there are numerous examples of co-creation of service value, in manufacturing as well as service industry. This research focuses on co-creation of service value. It generally is about service industry and it particularly talks about co-creation of service value insurance companies. Insurance sector is consisting of companies that offer risk management solutions in contractual form (insurance contracts). The underlying concept of insurance is that the one party (insurer) will guarantee payment for an uncertain event in future. In the meanwhile, the insured party (a policyholder) is liable to pay a small amount of premium to that insurer, as an exchange of that indefinite future event (Zainuddin et al., 2013). There are different types insurance

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companies like general insurance companies, life insurance company, property insurance company, accident and health companies, business insurance companies, reinsurance companies, errors and omissions insurance companies etc. (Ćurčić et al., 2019). The Insurance division of Pakistan is isolated into real two classes, Takaful, and traditional Insurance. Further the two classes likewise partitioned into two subclassifications, Life Insurance, and non-disaster Insurance. To spread the hazard reinsurance exercises are likewise completed in Pakistan. Insurance part giving a few coverages' which are Fire, engine, marine, flying, travel, wellbeing, money in Transit, Cash in Safe, life, individual mishap and misc. It is seen that the necessity of Insurance is exceptionally relative in an urban zone as opposed to country zones. Pakistan has 4 Public insurance companies, 50 private insurance companies (incorporated in Pakistan) and 5 private companies (incorporated abroad) according to the list shared by State Bank of Pakistan. These companies are divided into above-mentioned categories/types (Shawar, Siddiqui, 2019). This research's scope particularly revolves around general insurance. Being a service industry, that involves customization too, for different customers, insurance companies also need innovation and hence are involved in co-creation. The biggest example of co-creation is EY wavespace facility in Berlin where five competitors of insurance sector joined EY wavespace facilities for nine months and worked as colleagues to innovate, design, refine and select the most valuable and customer centric ideas and solutions. By joining professional heads, they were able to achieve their above-mentioned goals, were also equipped with required know-how and skills to promote flexible structures and open mindedness that derived the cultural change (Casula et al., 2022). Similarly, co-creation of service value is equally important in Pakistani insurance companies as well. Insurance is one of the industry sectors where customers and companies are in direct contact with each other (we can say they both interact with each other face-to-face) that is why studying co-creation in insurance companies in detail is important to understand the vital and relevant phenomenon deeply.

Pakistani insurance companies when co-create, having direct contact with customers and other stakeholders, can face different challenges too. These challenges can hinder the smooth process of co-creation and it may fail or go wrong (Hassan et al., 2022). This research aims to find out maximum challenges that service sector as a whole, and insurance industry in specific, face during co-creation of service value. The geographical context of the study is Pakistan and scope of the study will remain around benefiting the insurance sector of Pakistan, helping them to understand different challenges during co-creation of service value and let them know which challenges are more important to fight and cop-up with.

1.1. Research questions

- What are the challenges that Pakistani insurance companies face while co-creating the service value?
- How those challenges are inter-related with each other?
- What issues need to be dealt on priority basis?

1.2. Research objectives

- To generate a comprehensive list of challenges faced by Pakistani insurance companies while co-creating their service value
- To analyze their inter-personal relationships
- To prioritize them in a hierarchical model, on the basis of their importance
- To categorize them on the basis of their relationships

1.3. Research problem

Co-creation is all about value creation. When a company is co-creating but there are hindrances while generating the service value, it may lead to failure of co-creation. It means, those challenges of co-creation, if not handled properly, can lead to co-destruction that is a possible outcome of business, public and consumer collaboration and will also lead to decline in company well-being, loosing resources, or cause monetary and other tangible or intangible losses (Järvi et al., 2018). This is a call of the day, to study those challenges in the perspective of insurance companies, in order to let the companies, retain their customers and customer advocacy, as well as to get more clients and stabilize their co-creation procedures to make them successful (Bahri et al., 2022).

1.4. Research Gap

Research on service value and co-creation of value has been increased in past few years, along with the stress on the importance and benefits of co-creation. There are different studies done in the context of manufacturing and product industry, and few studies which has been done on co-creation of value in service industry also. After studying this emerging concept, it has been realized that there is insufficient literature and research available on co-creation of service value, and almost no research done in the context of Pakistani insurance companies and the challenges faced by insurance businesses while co-creating the service value. Few of the researchers like Järvi et al., (2018) has done research on the reasons that lead to co-destruction, but the study is related to Finland. Their research has identified 9 reasons of co-destruction after collecting data from customers and companies both. The researcher has suggested to do further comparative as well contextual studies to identify more challenges hindering the co-creation of service

value in different industries, sectors and countries. Bahri et al., 2022 also suggested to design a model for co-creation and relevant issues among insurance companies in different contexts. This research aims to identify maximum possible challenges faced by insurance companies of Pakistan, when they co-create their service value.

1.5. Methodological Choices

The methodology that has been used for achieving these objectives is Interpretive Structural Modeling (ISM) devised by Warfield (1972), along with Cross-Impact Matrix Multiplication Applied to Classification (MICMAC) analysis introduced by Godet and Bourse (1986). It has been a widely used research methodology in this type of studies e.g., Warfield, (1972); Shen et al., (2016); Tan et al. (2019) etc. ISM has been used to make a visualized hierarchical structure to identify, analyze, prioritize and summarize the factors and to define the complex relationships between the factors. Interpretive Structural Modeling has been considered to be the most appropriate and suitable methodology for conducting this research as this methodology helps to identify and rank the variables, to generate a structural diagram on the basis of their relationships that is a portray of the importance of the factors in the form of a directed-graph (diagraph) model, to establish the interrelationships between variables and to discuss the managerial implication of the research ISM and MICMAC have helped the author to answer the research questions, achieve the objectives and provide the meaningful understanding of the subject under study.

Structure of the remaining paper is set as literature review, methodology, analysis and results, discussion and conclusion.

2. Literature Review

Literature has been explored from the well-known data bases and journals i.e., Science Direct, Tylor and Francis, JStor, Sage, Springer, Emerald, Google Scholar and a few more. The keywords that have been used to do research include co-creation, service value, co-creation in service industry, challenges of co-creation, challenges of co-creation in service value, issues during co-creation in service sector etc. Around 79 research articles against the above-mentioned keywords, found, out of which around 35-55 articles were considered to be the relevant that are reported to set out the context of the study. Literature has been reviewed to extract the challenges, as suggested by Gothwal et al., (2017) and Tan, et al., (2019).

2.1. Co-creation and Its Importance

Co-creation is mostly about participant alignment and cross-pollination of knowledge and perspectives (Payne et al., 2008). With a highly interactive agile methodology, you may collaborate progressively with consumers and other stakeholders and gain the clearest insights. The first step, co-creation planning, is where you can cover all the bases on how the service can be provided to optimise value for both clients and the company (Kunz et al., 2021). Co-creational activities could go horribly wrong or make a mess if they are not adequately organized. The literature stresses the significance of shifting traditional managers' perspectives to a customer-centric way of thinking with an emphasis on cooperation and a responsiveness to customers' experiences and requirements (Edvardsson et al., 2011). It is obvious that control, planning, and forecasting must be less of a priority in open innovation and co-creation.

2.2. Problems in Co-creation

This presents a significant problem because it challenges the outdated paradigm of closed innovation and is likely to meet with strong opposition from managers who support the conventional methodology. Large obstacles for businesses arise both during and after the co-creation process. Co-creation can result in a wide variety of ideas and unexpectedly great results (Järvi et al., 2018). However, chaos and noise result from having too many inputs and not enough structure. Therefore, it is beneficial to create certain concise methods that allow for efficient value production. Prioritizing and articulating objectives will not stifle creativity; rather, it will help it focus. To strike the best balance between freedom and control will always be difficult. Protocols can help in establishing the ground rules of engagement, but they must be continuously updated in light of new experiences. The norms and standards will inevitably change as a co-creation platform expands and more users participate in it (Bahri et al., 2022).

2.3. Challenges of Co-creation; Evidence from contemporary Literature

Through co-creation techniques, consumers can raise the value of brands and products. The same customers, however, may grow displeased and their compliance may subsequently develop into dissent (Fagerstrm et al., 2020). Numerous businesses are worried about these hazards and are aware that customers have the power to "make or break" a brand. But if you want to properly co-create, you must relinquish some control. This fosters collaboration and a sense of community, cooperation, and trust (Iglesias et al., 2020).

Pessimism and dissatisfaction can be avoided by creating a collaborative culture with constant communication. Additionally, co-creators who feel particularly committed to a brand or business are more motivated to defend its image and even counterattack criticism (Knudsen & Antorini, 2021). It's critical to start engaging customers in the co-creation process and maintain their drive for excellence. Usually, co-creative consumers are motivated by internal factors. According to research, businesses that only use financial incentives to persuade customers to raise their input

are ineffective (Ind et al., 2020). According to the study, customers begin focused on fulfilling the criteria and are not naturally motivated to provide high-quality comments. It resulted in a big surge in engagement input since these businesses adjusted their strategies and catered to customers' desire for praise, acknowledgment, and respect.

Getting unfavorable comments from others may foster a harmful competitive and destructive mentality since customers believe that their contributions to the co-creation process are special and significant (Kim et al., 2020). Disputes raise the likelihood of discontent and alienation from the society. Conflicts can promote bad word-of-mouth (WOM) or inspire co-creative consumers to work with some other party. Hence, it is critical for businesses to foster and sustain a mood of positivity among competing unit participants. This can be accomplished, according to Kim (2020), by "gamifying" the co-creation collaboration and adding enjoyable and entertaining features. Participants can collaborate in this manner, see the immediate effects of their work, and keep their attention on beneficial results rather than experiencing negative criticism.

Rarely will customers, who participate in co-creational activities, be able to guess how a product will turn out on their own. However, since they're heard during the cooperation, customers feel emboldened and experience a feel of satisfaction and self-efficacy (Knudsen & Antorini, 2021). The real impact on the product appears to be less significant. Here, the trust component is important since it directly affects how well people communicate and how empowered they perceive themselves. Customers will get more engaged and will tend to feel more empowerment as a result of their increased trust in the brand or firm (Iglesias et al., 2020). The survey further claimed that there is not enough trust when the customer refuses to divulge information. When a consumer is reluctant, they may be doing so on purpose in order to conceal certain information. For instance, if the customer gives misleading data about how the company intends to use a specific industrial machine, the supplier will not be able to offer a solution that will be appropriate for that because the initial information was inaccurate.

When a provider's processes are inefficient or slow, they also may lead to co-destruction of value (Ind et al., 2020). Internal business operations of a supplier may be sluggish, which has an impact on things like how quickly employees can respond to client inquiries or how long it takes for a product to be delivered. Additionally, for lengthy projects, the service-provider could give a time estimate at the outset; yet, this projection may prove to be incorrect due to issues inside the service provider's organization or other external factors, like labor disputes. The results of the study by Ind et al. (2020) indicate the incapacity to adjust occurs in connections among businesses and consumers or between citizens and public institutions.

If consumers disregard additional services that firms are providing them, suppliers' efforts to make consumers' daily lives easier will suffer. Suppliers constantly try to find ways to save costs and increase the efficacy of their services (Assiouras et al., 2019). One way to improve performance is by having consumers who behave differently in particular service situations. However, if clients are hesitant to seek for the offerings, a company has little chance of keeping them happy. Consumers could have inflated notions as a result of their previous dealings with other service providers. Customers could have inflated expectations as a result of their previous dealings with other service providers. Consumers who don't know the total cost of a project that is made up of numerous components might anticipate receiving a premium service (Mandolfo et al., 2020). Customers also carry their past relationships' positive and negative experiences with them, and they might assume that if they had dealt with a cheaper brand in the past, they might have received a certain number of services from the new supplier. Instead, the provider may demand that the customer accomplish certain tasks in exchange for a discounted price.

According to the research of Assiouras et al. (2019), one of the causes of value co-creation failure is customer misbehaviour. When clients act badly in ways the provider did not anticipate, the conduct results in unneeded stress and anxiety for the provider, which lowers the provider's health. According to research, the supplier can advise and educate consumers about how to maximise benefits from a product or service in the most effective and useful way; yet, if a customer chooses not to do so for any reason, the customer helps value co-destruction occur. Research by Casais et al. (2020) claimed that managing collaboration might be difficult while dealing with customer blame. Excessive complaining can lead to blaming. Respondents often emphasised how their consumers destroy value by openly complaining, whether on social media, or to friends and family. Customers in the public, industry, and consumer markets all exhibit this behaviour. Blaming is particularly destructive when the client publicly shames the incorrect actor for a mistake or when the complaint is founded on an error.

In their research, Kim et al. (2020) claim that value co-destruction occurs when there is an incapacity to service from the perspective of the client. When they propose pricey options, most of clients get dissatisfied. Customers may believe that the item or service is pricey and that they are thus getting less value for their money. Customers may perceive that a price rise is unwarranted if a supplier is under pressure to do so, which will make them unhappy. According to study by Buhalis et al. (2020), the incapacity to modify is one factor in co-creation failure or value co-destruction. Both the supplier and the client may struggle with change. The supplier and the client are compelled to modify their behavior in response to circumstances such as a shifting business climate, the impact of megatrends, and the

consequences of product and service development. If any of them fails to do so, the opponent will feel value co-destruction, which is a drop in wellbeing (Järvi, 2018). The results imply that one cause of value co-destruction is customer misconduct. The supplier's wellbeing suffers when clients act badly in ways that the provider did not anticipate since the conduct adds needless stress and concern to the supplier's life. The relationship between the parties may be hampered by a troublesome client. Customers view the task description as one of the components of the job layout. The user might not be able to "react" to some of the messages if there is an additional data or chaos or information. According to Buhalis et al. (2020), well-organized communication channels not only help consumers make choices, but they also cut down on the amount of information that is sent, which results in relevant goods and happy customers.

According to Ahmad et al. (2021), while using some technical interfaces might be difficult for some people, businesses and customers can both profit from using internet-based platforms. Businesses need to be mindful of how the level of technology fear affects the amount of engagement in online initiatives. Older adults experience less confidence and greater technology anxiety than younger ones, according to Hassan et al. (2022). Co-creation initiatives require both offline and online elements; they cannot be entirely online. People may genuinely be fully active in a social process if you mix. It will not function properly if you just have it online, according to consultant, co-creation design. Although offline encounters strengthen bonds between online community members, Casula et al. (2022) contend that they undermine the viability of the community in terms of online participation.

Customers can lack confidence in the service and are hesitant to provide information, willfully withhold some, or give inaccurate information. The basis for a customer's willingness to divulge information is trust (Sadiq et al., 2022). We may thus presume that a user's attitude towards co-creation may be negatively impacted if he or she does not have adequate confidence in the business. As a result, it becomes difficult for service providers to give the finest available goods or services. Another problem is that, regardless of the cause, the lack of communication and openness between insurers and insurance companies has an impact on the final co-creation of service value. According to Kim et al. (2020), skepticism helps customers protect themselves from fraud and false claims. However, customer doubt may undermine the effectiveness of marketing strategies when it accumulates and becomes widespread. Co-creation online is one of these marketing strategies, and customers' mistrust of this strategy may be one of the reasons they choose not to participate.

2.4. Co-creation and Its Challenges in Insurance Sector

If we talk about the above-mentioned challenges in insurance companies, literature supports these challenges in the context of insurance companies too and sometimes company’s culture itself is bounded towards traditional ways of dealing customers (Jansma et al., 2022). In order to go forward as a single group of decision-makers with a shared vision, you and (for example) stakeholders (particularly consumers) must first reach the level where you can use insight and diplomacy. This implies that you prepare and begin working with stakeholders, other teams, related insurance companies, etc., to gain their support by embracing their strengths rather than focusing on their flaws and pooling your knowledge to address smaller issues before attempting to handle more significant ones.

2.5. Evidence from Pakistan

Co-creation of service value in Pakistani insurance companies also need workers who are focused on the outside world and who can quickly and effectively address the requirements and desires of customers (Ahmad et al., 2021). Opening out to customers means that businesses should be prepared for un-favorable criticism. In this approach, a corporation may find it difficult to manage co-creation of service value while operating within a dominating culture insurance organization. We can say that there are a number of skills that insurance managers need to develop in order to successfully co-create their service value, including: being more adaptable and flexible, starting and maintaining an authentic dialogue, being receptive to outside input, exuding accessibility, and building trust (Zainuddin et al., 2013). When all parties are on the same page and share their knowledge and concerns, co-creation is most successful and productive. This lessens the possibility of a negative word-of-mouth problem. An insurance firm may fail to put the needs of its clients first and instead place an excessive emphasis on its own worth, neglecting the value that the consumer should get. This failure eventually has a detrimental impact on the business's reputation and customer loyalty (Raza et al., 2020). Researchers also contend that value co-destruction might happen if a consumer is unable to embrace new behavioral patterns (Sadiq et al., 2022). There are numerous examples, when customers are unwilling to use new services, cited by consumer goods and service providers. Customer misbehavior can also happen in the case of insurance companies when a customer misuses/misunderstands the policy. In this case, customer will most likely blame the provider company. Handling those customers itself is a problem (Hassan et al., 2022). Pakistani customers are sometimes unaware of rules regulations and policies and are not willing to read long papers before signing the contract. They may think that company’s procedures are long and tiring, or time-wasting, or they may prefer different interactions like some prefer online while others may be willing for offline meeting. Sometimes, due to high inflation rates, high interest rates and low-income rates, customers feel like service is over-priced. Similarly, some of the

businessmen are not always post graduates or tech-friendly so they might feel it difficult when company involves technology while co-creation (Ahmad et al., 2021). This creates a tech-anxiety among customers and hassle for companies. These scenarios may create issues that often become a challenge for company. Following table (Table 1) is the crux of literature and list of challenges which insurance companies face, while co-creation of service value:

Table 1: Challenges during co-creation of service value

Sr.	Challenges	Definitions	Citations
1.	Proper planning	During the alignment of participants and cross-pollination of expertise and viewpoints, if a company does not succeed in proper planning of co-creation activity or is unable to cover some angles regarding service value maximization, due to any internal or external reason, then it may lead to unsuccessful co-creation activity.	Kunz et al., 2021
2.	Changing Management Mindset	Changing the traditional old paradigm of closed innovation, less focus on control, planning and forecasting, towards being more flexible, adaptive, client-centric, creative and open to external comments to be efficient respondent to customers' needs and wants, to generate trust and to maintain a sincere dialogue with customers can be a challenge in traditional organizations during co-creation of service value.	Edvardsson et al., 2011
3.	Trust Building	Customers sometimes don't trust the provider and are unwilling to share information, deliberately hide some or provide incorrect information. Therefore, it becomes a challenge for service provider to offer a best suitable product or service.	Iglesias et al., 2020
4.	Transparency in Dialogue	There is insufficient dialogue and transparency between insurer and insurance, this can be due to any reason but effects the co-creation of service value at the end.	Kim et al., 2020, Sadiq et al., 2022
5.	Motivating Customers	Customers are not motivated enough to participate or to share ideas during co-creation. Monetary rewards are not always the sources of motivation for the customers. They need intrinsic motivation to participate during activity. This also is considered to keep them motivated enough to get along.	Ind et al., 2020
6.	Competitors' Co-creation Strategies	How competitors are co-creating their service value (Competitors' strategies) are always a threat, and it is a challenge to do better than them, for a business.	Järvi et al., 2018
7.	Balancing Freedom and Control	Co-creation can sometimes generate a disbalance between freedom and control. When different people participate/are involved, norms and rules are most likely to be evolved.	Järvi et al., 2018
8.	Creating a Collaborative Culture	A collaborative culture with a continuous dialogue can prevent negativity and disappointments to arise. In addition, when co-creators feel closely connected to a brand or a company, they are likely to become protective of its reputation and will even refute negative comments from others.	Fagerstrøm et al., 2020
9.	Conflict of Interest	Customers can have conflicts among them due the competition regarding their unique and important contributions during co-creation process. This increases the risk of dissatisfaction, chaos, withdrawal from community and negative word-of-mouth.	Knudsen & Antorini, 2021
10.	Avoiding Disappointed Customers	Due to trust issues, customers all always sure what they will receive at the end, as a final product or a service, so they are disappointed if the product or service is opposite or different from their expectation. It is a challenge to avoid those disappointing customers as they are not easily identifiable. Provider, if rejects the ideas by customer, customer may feel disappointed, rejected and may disengage.	Raza et al., 2020
11.	Central Culture Pattern	Company's own culture, norms and values can also create any hindrance in co-creation activity.	Jansma et al., 2022
12.	Technology Anxiety	Customers feel difficult while using internet-based platforms and its challenging for them to exploit some technological interfaces.	Bahri et al., 2022, Ahmad et al., (2021)

13.	Scepticism	Customers have fear that they will be unheard among huge other voices and they want to be sure if their idea is chosen, then it will be protected under their name. this fear refrains them from participating in this marketing practice.	Bahri et al., 2022
14.	Task Layout	Customers feel that there is excessive information flow by provider that overloads them that is why they don't participate in co-creation activity.	Ind et al., 2020
15.	Mode of Interactions	Customers have issues while participating online or offline meetings during co-creation.	Zainuddin et al., 2013
16.	Ability of Coping Customer Needs	If the processes are slow at provider's side, like provider is taking long time to resolve customer issue or to deliver product or service, the purpose of co-creation may not be achieved and is hindered.	Kim et al., 2020
17.	Ability of coping Change	Accepting change in the culture, regulations or policies can be a hindrance as employees can resist change or are not ready to adapt any kind of change in organization	Assiouras et al., 2019
18.	Unclear expectations	Customers can have inaccurate/unclear expectations about the product or service and its value, which can be based on previous experiences with other providers or they might be comparing prices or value with your competitors. It is a challenge to meet their unclear expectations.	Mandolfo et al., 2020
19.	Customers' misbehaviour	Customers can also misbehave due to any reason. Customer's misbehavior management is also a challenge while co-creational activity.	Assiouras et al., 2019
20.	Blaming the provider	Blaming is especially harmful in cases in which the complaint is made publicly e.g., on social media etc. and is based on a mistake or the customer publicly shames the wrong actor for a mistake.	Casais et al., 2020

3. Methodology

This research follows interpretivism as a research philosophy and inductive research approach. It uses the mixed method approach in which ISM is used as primary and MICMAC analysis is used as a secondary method. Mixing primary and secondary methodologies in qualitative research has several benefits like Triangulation, Richness of data, Increased flexibility, Cost and time efficiency, and better understanding of context so mixed method approach helped the author to achieve the objectives while having no compromise on quality of research approach. Because it is a theory-building and auxiliary research during data analysis, no basis theory is necessary, as asserted by (Ahmad and Qamash, 2021).

3.1. Population under study

Employees of business-related department of insurance companies for the sake of this study the researchers decided to investigate phenomenon based on the data collected from the employees of one of the large leading companies of insurance sector of Pakistan. The company selected. For this purpose, as a case study is United Insurance Company of Pakistan Ltd. Reasons for selecting united insurance company of Pakistan as a case study include:

i. It is one of the emerging top insurance companies of Pakistan.
ii. It has wide variety of insurance products presently being sold all over the country including some international representation as well.
iii. It has got head office in the business hub of Lahore i.e., the Upper Mall of Lahore whereas, network all over the country.
iv. The management and employees are agreed to participate in the study.
v. The company also meets co-creation criteria set for purpose of this research.
vi. Last but not the least, researchers being students of Doctorate of Philosophy in Lahore, are comfortable to collect the data to make this research conclusive.

However, since it is a General Insurance Company, with wide variety of products and services, large network, comparable to all other insurance companies of Pakistan, therefore, the results of the study are fairly generalizable to the insurance industry of Pakistan. This case study did not compromise any scientific aspect of the research in general but rather it gives more specific and deep insights. Moreover, another reason for taking this case is homogeneity in products and services. All the insurance companies have almost similar services and products, work under same laws and regulations, and the industry standards are almost similar for each insurance companies etc. so research on specific company can give worthy results to generalize on all general insurance companies.

The criteria for choosing respondents were set as follows:

- Educational background: Must be at least post-graduated from a reputable institute
- Expertise: Must have the experience of more than 5 years in the organization chosen
- Designation: Must be designated at middle or higher management level of the organization
- Departments: Must be from the department relevant to co-creation or the department that is directly or indirectly involved in co-creation of service value

The stakeholders of the phenomena under research are identified as a first step towards population characterization, in keeping with the spirit of stakeholder theory. The idea of corporate governance known as the "stakeholders' theory" offers the fundamental presumption for determining sample representativeness. Edward Freshmen popularized this hypothesis in the 1980s. He described the stakeholders as a collection of people who have an impact on or have the potential to influence the accomplishment and success of the company. The interests of all of these stakeholders should be taken into consideration when making organizational or corporate choices, according to Ackermann (2011). This theory also takes into account the priorities of stakeholders, whether they are internal or external. Therefore, envisaged on stakeholders of co-creation of service value, in insurance companies of Pakistan and in this, because the study is about challenges faced by insurance business, so the stakeholders i.e., relevant departments of United insurance company are taken set of representative respondents (i.e., to formulate a homogenous panel of experts).

Since, the research on phenomenon under study is in process of crystallization and the exploratory studies are currently taking place including the current study therefore expert opinion based/focused-group based data collection is more appropriate than the statistical data. Keeping in view the context, this study opted for constitution for panel of experts for data collection. Panel of experts is constituted for the study on the basis of pre-determined criteria defined by Clayton, 1997; Khan, 2013; Tan et al., 2019. Reason for choosing the panel of experts over statistical population is that they have in depth understanding of the phenomenon and they are able to outperform in eliciting the relationships regarding challenges (Sushil, 2017). The principle of selecting the experts is “quality outweighs quantity” (Shen et al., 2016).

3.2. Sample

Sample design is purposive because data is collected from specialized type of population and researcher have chosen the relevant sample and departments of United Insurance company. The departments involved in research are Claim, Reinsurance, Underwriting and Sales department, as they are the most relevant departments in co-creation. Sample size finalized was a homogenous panel of 18 experts from all the four departments among which, 15 were experts from field (United Insurance Company) and 3 were qualified researchers having relevant postgraduation degrees. All experts recruited on the panel are well-versed with theoretical and practical knowledge of the domain. At the time of data collection, one of respondent from claim department was not available to participate so 17 respondents actually participated.

3.3. Instrument of Measurement

VAXO based questionnaire has been used for data collection. It is a matrix-style questionnaire that is used to gather information about the relationships between different elements in a complex system. To fill out a VAXO matrix questionnaire, participants are asked to rate the relationships between different elements in the system. For example, they may be asked to rate the perceived strength of the relationship between two elements, or to rate the perceived importance of one element to another. The relationships between elements are then plotted on a matrix to create a visual representation of the relationships.

The VAXO matrix questionnaire is a commonly used tool in ISM studies due to its simplicity and effectiveness in gathering information about relationships between elements in a complex system. The questionnaire (instrument of data collection) measured the paired relations among the critical success factors using classical symbols of VAXO. The data has been collected on *ij* part of the matrix, whereas, *ii* part and *ji* part of the matrix has been logically and/or mathematically calculated.

3.4. Data Collection

The mode of data collection in this study has been a face-to-face, one-on-one semi-structured interview. There were actually four natural options on each paired relation because the author had already prepared a list of factors and in accordance with ISM standards, making it possible to create a matrix outlining the scope of the study. As a result, the effort to collect the data was somewhat structured. However, the respondents (especially those unfamiliar with ISM) also require assistance in the form of interviews (semi-structured). Following the objectives along with the research gap identified, the appropriate methodology which has been used in this research, is Interpretive Structural Modeling (ISM) technique, proposed by (Warfield, 1972; Attri et al., 2013), along with Cross-Impact Matrix Multiplication Applied to Classification (MICMAC) analysis developed by Michel Godet and Francois Bourse in 1986.

The reason for using ISM and MICMAC analysis in this research is to provide a visual representation of the relationships between elements in a system. This representation can help researchers and other stakeholders to better understand the relationships and to identify areas where improvement is needed.

Table 2: Profile of Experts on Panel

Expert	Category of stakeholder	Organization type	Department	Designation	Experience	Education
1	Researcher	Large Public Organization	Management Sciences	Assistant professor	Above 10 years	Above 16 years
2	Researcher	Large Public Organization	Management Sciences	Assistant professor	More than 5 years	Above 16 years
3	Researcher	Large Public Organization	Business School	Associate professor	More than 10 years	Above 16 years
4	Employee	Large Insurance Company	Management department	Assistant General Manager	More than 10 years	16 years
5	Employee	Large Insurance Company	Management Department	Senior Manager	More than 20 years	16 years
6	Employee	Large Insurance Company	Management Department	Manager	More than 10 years	Above 16 years
7	Employee	Large Insurance Company	Reinsurance	Head Agri Insurance	More than 5 years	16 years
8	Employee	Large Insurance Company	Reinsurance		5 years	16 years
9	Employee	Large Insurance Company	Reinsurance	Head Reinsurance	10 years	Above 16 years
10	Employee	Large Insurance Company	Claim	Head Motor Claim	More than 15 years	16 years
11	Employee	Large Insurance Company	Claim	Claim Analyst	10 years	More than 16 years
12	Employee	Large Insurance Company	Claim	Claim Representative	5 years	16 years
13	Employee	Large Insurance Company	Marketing/Sales	Sales Agency Manager	More than 5 years	16 years
14	Employee	Large Insurance Company	Marketing/Sales	Sales Agent	More than 10 years	14 years
15	Employee	Large Insurance Company	Marketing/Sales	Marketing Manager	More than 5 years	More than 16 years
16	Employee	Large Insurance Company	Underwriting	Underwriting Manager	More than 5 years	16 years
17	Employee	Large Insurance Company	Underwriting	Underwriter	More than 5 years	16 years

The visual representation provided by these techniques is also useful for communication and collaboration, as it can be easily understood by stakeholders who may not have a background in the field. Moreover, the suitability of methodologies and analysis with achieving goals and objectives of the study is also the reason. It is basically used to get better insights regarding the under-study influences and their 'whether and how' relationships. In summary, ISM and MICMAC analysis are used in this research to analyze and understand the relationships between elements in a complex system. They are used to provide a visual representation of the relationships and to identify areas where improvement is needed, which can help to support decision making and planning (Shen et al., 2016); Attri et al., 2013). In this research, ISM has been used to make a visualized hierarchical structure to identify, analyze, prioritize and summarize the factors and to define the complex relationships between those factors. A structural diagram on the basis of their relationships is extracted, that is portray of the importance of the factors in the form of a diagraph model. MICMAC analysis has been used to develop a graph which classifies the factors under study on the basis of their driving and dependence power. Another purpose of using MICMAC is to validate the interpretive structural model and to reach the discussion and conclusion. In this study, ISM was used to create a visually appealing hierarchical structure that identified, evaluated, ranked, and summarized the elements as well as the intricate connections between

them. On the basis of their interactions, a structural diagram that represents the significance of the components as a diagraph model is extracted. A graph that categorizes the components under research based on their driving and reliance power has been created using MICMAC analysis. Utilizing MICMAC also serves the goal of validating the interpretative structural model and arriving at the discussion and conclusion. This research, after using ISM and MICMAC, is considered as a theory building (arrow originating) research rather than theory confirmation.

3.5. Panel of Experts

Following table 2 is the summary of Panel of Experts who actually participated:

4. Analysis and Results

ISM and MICMAC analysis has been done by following the procedure devised by Sharma et al., 2013. The analysis starts from making SSIM using the responses of respondents and using Countif formula on excel to get the majority responses and to treat them further. Table 1 is the SSIM generated.

Table 3: Structural Self-Interaction Matrix (SSIM)

Code	Challenges	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Proper Planning		O	V	V	V	V	O	O	O	V	O	O	O	V	V	V	V	O	O	V
2	Changing Management Mindset			X	A	V	V	X	X	A	A	V	A	A	A	O	O	V	V	O	A
3	Building Trust				X	X	V	O	X	O	V	A	V	O	O	A	A	O	O	O	A
4	Transparency in Dialogue					V	A	A	V	O	V	O	O	O	A	X	X	O	O	O	O
5	Motivating Customers						X	X	V	O	A	V	A	A	V	V	X	O	O	V	A
6	Competitors' Co-creation Strategies							V	X	V	O	V	A	O	O	O	V	O	V	O	X
7	Balancing Freedom and Control								V	V	V	O	A	O	O	X	V	O	O	O	A
8	Creating a Collaborative Culture									O	X	V	X	V	V	O	V	O	O	V	A
9	Conflict of Interest										O	X	O	O	X	O	O	V	A	O	O
10	Avoiding Disappointed Customers											V	O	O	X	A	V	X	O	V	V
11	Dominant Culture Pattern												V	A	O	V	V	A	O	O	A
12	Technological Adaptation													V	V	V	X	O	V	O	V
13	Scepticism														O	X	O	V	X	O	O
14	Task Layout															A	X	A	A	O	V
15	Mode of Interactions																X	O	V	O	V
16	Ability to Meet																	X	X	V	X

	Customers Need																			
17	Inability to Cope Change																	X	V	X
18	Unclear Expectations																		O	V
19	Customers' Misbehaviour																			O
20	Handling the Blaming Attitude of Customers																			

Table 4: Reachability Matrix

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	0	1	1	1	1	0	0	0	1	0	0	0	1	1	1	1	0	0	1
2	0	1	1	0	1	1	1	1	0	0	1	0	0	0	0	0	1	1	0	0
3	0	1	1	1	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0
4	0	1	1	1	1	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0
5	0	0	1	0	1	1	1	1	0	0	1	0	0	1	1	1	0	0	1	0
6	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	1	0	1	0	1
7	0	1	0	1	1	0	1	1	1	1	0	0	0	0	1	1	0	0	0	0
8	0	1	1	0	0	1	0	1	0	1	1	1	1	1	0	1	0	0	1	0
9	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0
10	0	1	0	0	1	0	0	1	0	1	1	0	0	1	0	1	1	0	1	1
11	0	0	1	0	0	0	0	0	1	0	1	1	0	0	1	1	0	0	0	0
12	0	1	0	0	1	1	1	1	0	0	0	1	1	1	1	1	0	1	0	1
13	0	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1	1	0	0
14	0	1	0	1	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0	1
15	0	0	1	1	0	0	1	0	0	1	0	0	1	1	1	1	0	1	0	1
16	0	0	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1
17	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	1	1	1	1
18	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	1	1	0	1
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
20	0	1	1	0	1	1	1	1	0	0	1	0	0	0	0	1	1	0	0	1

Table 5: Final Reachability Matrix

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Driving
1	1	1*	1	1	1	1	1*	1*	1*	1	1*	1*	1*	1	1	1	1	1*	1*	1	20
2	0	1	1	1*	1	1	1	1	1*	1*	1	1*	1*	1*	1*	1*	1	1	1*	1*	19
3	0	1	1	1	1	1	1*	1	0	1	1*	1	1*	1*	1*	1*	1*	1*	1*	1*	18
4	0	1	1	1	1	1*	1	1*	0	1	0	1*	1*	1*	1	1	1*	1*	1*	1*	17
5	0	1*	1	1*	1	1	1	1	1*	1*	1	1*	1*	1	1	1*	1*	1*	1	1*	19
6	0	1*	1*	1	1	1	1	1	1	1*	1	1*	1*	1*	1*	1	1*	1	1*	1	19

7	0	1	1*	1	1	1*	1	1	1	1	1*	1*	1*	1*	1	1*	1*	1*	1*	1*	19
8	0	1	1	1*	1*	1	1*	1	1*	1	1	1	1	1	1*	1	1*	1*	1	1*	19
9	0	1	1*	1*	1*	1*	1*	1*	1	1*	1	1*	0	1	1*	1*	1	1*	1*	1*	18
10	0	1	1*	1*	1	1*	1*	1	1*	1	1	1*	1*	1	1*	1	1	1*	1	1	19
11	0	1*	1	1*	1*	1*	1*	1*	1	1*	1	1	1*	1*	1	1	1*	1*	1*	1*	19
12	0	1	1*	1*	1	1	1	1	1*	1*	1*	1	1	1	1	1	1*	1	1*	1	19
13	0	1	1*	1*	1	1*	1*	1*	1*	1*	1	1*	1	1*	1	1*	1	1	1*	1*	19
14	0	1	1*	1	1*	1*	1*	1*	1	1	1*	1*	1*	1	1*	1	1*	1*	1*	1	19
15	0	1*	1	1	1*	1*	1	1*	1*	1	1*	1*	1	1	1	1	1*	1	1*	1	19
16	0	1*	1	1	1	1*	1*	1*	1*	1*	1*	1	1*	1	1	1	1	1	1	1	19
17	0	1*	1*	1*	1*	0	1*	1*	1*	1	1	1*	1*	1	1*	1	1	1	1	1	18
18	0	1*	1*	1*	1*	1*	1*	1*	1	1*	1*	1*	1	1	1*	1	1	1	1*	1	19
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
20	0	1	1	1*	1	1	1	1	1*	1*	1	1*	1*	1*	1*	1	1	1*	1*	1	19
Dependence	1	19	19	19	19	18	19	19	17	19	18	19	18	19	19	19	19	19	20	19	

Above mentioned table is the transitivity matrix, which contains all the transitive relations in the initial reachability along with the driving and dependence power. The next step in ISM is to generate the iterations, as proposed by Warfield (1973) in order to find out the level of each factor, one level per iteration. The level-by-level iterations were then derived by making the reachability and antecedent sets by following thirteen iterations (Table 6-13).

Table 6: Iteration 1

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1	1	
2	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
3	2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,19,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
4	2,3,4,5,6,7,8,10,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,12,13,14,15,16,17,18,20	
5	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
6	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20	
7	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,19,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
8	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	

9	2,3,4,5,6,7,8,9,10,11,12,14,15,16,17,18,19,20	1,2,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,5,6,7,8,9,10,11,12,14,15,16,17,18,,20	
10	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
11	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
12	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
13	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,20	
14	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
15	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
16	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
17	2,3,4,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
18	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
19	1	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1	*I*
20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	

Table 7: Iteration 2

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1	1	
2	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
3	2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
4	2,3,4,5,6,7,8,10,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,12,13,14,15,16,17,18,20	
5	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
6	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20	
7	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
8	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
9	2,3,4,5,6,7,8,9,10,11,12,14,15,16,17,18,20	1,2,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,5,6,7,8,9,10,11,12,14,15,16,17,18,20	
10	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
11	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	
12	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
13	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,20	

14	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
15	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
16	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
17	2,3,4,5,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
18	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*
20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	*II*

Table 8: Iteration 3

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,3,4,6,9,11,13	1	1	
3	3,4,6,11,13,	3,4,6,9,11,13	3,4,6,9,11,13	
4	3,4,6,13,	1,3,4,6,9,11,13	3,4,6,9,13	*III*
6	3,4,6,9,11,13	1,3,4,6,9,11,13	3,4,6,9,11,13	*III*
9	3,4,6,9,11	1,6,9,11,13	6,9,11	
11	3,4,6,9,11,13	1,3,6,9,11,13	3,6,9,11,13	
13	3,4,6,9,11,13	1,3,4,6,11,13	3,4,6,11,13	

Table 9: Iteration 4

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,3,9,11,13	1	1	
3	3,11,13,	3,9,11,13	3,9,11,13	
9	3,9,11	1,9,11,13	9,11	
11	3,9,11,13	1,3,9,11,13	3,9,11,13	*IV*
13	3,9,11,13	1,3,11,13	3,11,13	

Table 10: Iteration 5

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,3,9,13	1	1	
3	3,13	3,9,13	3,13	*V*
9	3,9	1,9,13	9	
13	3,9,13	1,3,9,13	3,13	

Table 11: Iteration 6

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,9,13	1	1	
9	9	1,9,13	9	*VI*
13	9,13	1,9,13	13	

Table 12: Iteration 7

Code	Reachability set	Antecedent set	Intersection set	Level
1	1,13	1	1	
13	13	1,13	13	*VII*

Table 13: Iteration 8

Code	Reachability set	Antecedent set	Intersection set	Level
1	1	1	1	*VIII*

ISM Model has been made using above iterations on the software named EdrawMax. following is the graphical representation of ISM Model in which challenges of co-creation are placed on eight different levels on the priority basis.

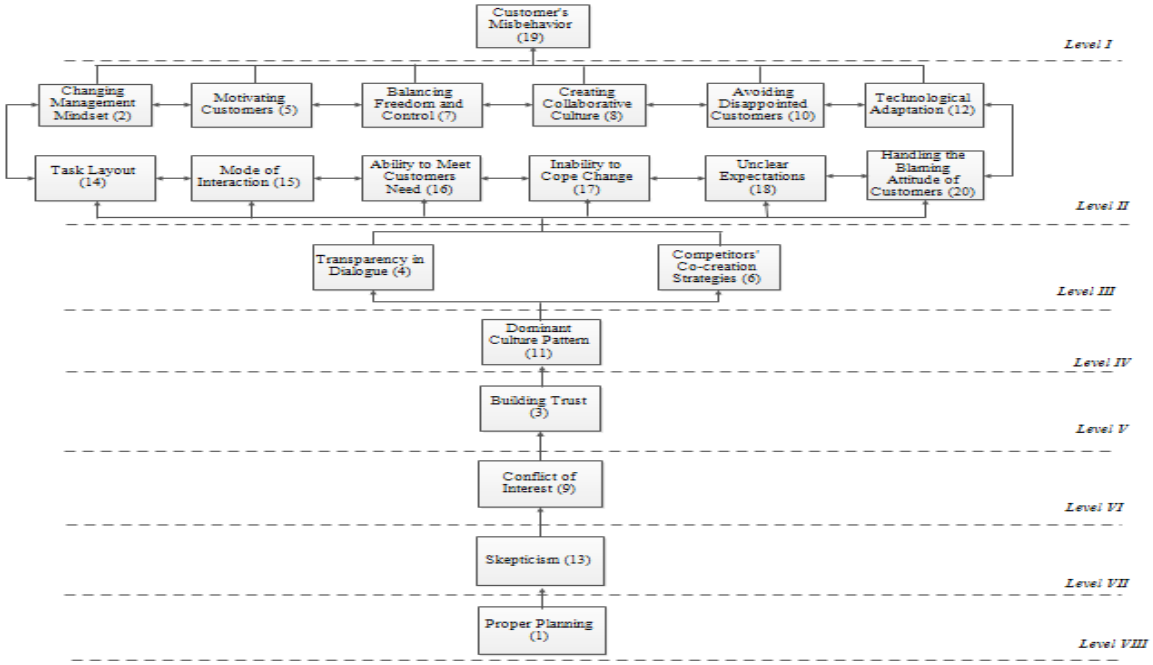

Figure 1: ISM Model

20	19																			
19																		6	2,5,7,8,10,12, 14,15,16,18,20	
18																			3,9,11,13,17	
17																			4	
16				**Independent**												**Linkage**				
15																				
14																				
13																				
12																				
11																				
10																				
9																				
8																				
7																				
6																				
5				**Autonomous**												**Dependent**				
4																				
3																				
2																				
1																				1
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**

Figure 2: MICMAC Analysis

5. Results and Discussion (ISM and MICMAC)

5.1. Results of ISM

Results of ISM model say that the challenges lie on eight different levels. Those levels have their own meanings. As the model is considered bottom so the challenge at the bottom is considered as the most critical one. Challenge coded

as Proper Planning (1) is at the bottom most *(Level VII),* (Fig. 1). The challenges, which lie in the bottom are the most critical ones. They need special treatment on priority basis and are needed to be eliminated from the co-creation process in order to make it smooth. If we talk about the middle levels, they are the linkage factors and they are inter-linked with each other as well as with others. They all are moderately severe and should be avoided at best level because they cause the bottom level factors too. The linkage factors include Skepticism (13) on the second *(Level VII),* Conflict of Interest (9) on *Level VI* and Building Trust (3) on *Level V,* Dominant Culture Pattern (11) at *Level IV,* Transparency in Dialogue (4) and Competitors' Co-creation Strategies (6) at *Level III,* Changing Management Mindset (2), Motivating Customers (5), Balancing Freedom and Control (7), Creating Collaborative Culture (10), Technological Adaptation (12), Task Layout (14), Mode of Interaction (15), Ability to Meet Customer Needs (14), Inability to Cope Change (17), Unclear Expectations (18) and Handling the Blaming Attitude of Customers (20) lie on *Level II.* Now, the factors (challenge in this case) at the top most level, is the least important to handle. It means, if we immediately treat the bottom level challenges and start working on the linkage factors at middle level, starting from the *Level VI* first and moving towards *Level II,* the top most challenge will automatically be eliminated, which is Customer's Misbehavior (19) as a challenge on the *Level I*. This seems logical too. If we handle all the mentioned and discussed challenges that a company face during co-creation, customers' misbehavior may not be a challenge as it may turn to customer satisfaction or loyalty. So, the model generated by whole ISM procedure seems logical too.

5.2. Results of MICMAC

Results show that Proper Planning (1) is dependent on linkage ones. The maximum challenges are on middle levels on the model and are the Linkage factors, being moderately severe and are interlinked with each other as well as with dependent challenge. It means, linkage factors are somehow responsible, collectively, the Customer's Misbehavior (19) is an independent one by nature. If all the severe and moderately severe challenges are handled, customer's misbehavior will not be a challenge! It is independent in a way that misbehavior might not be due to the problems organization rather it can be due to other factors as well that have no link with co-creation process. The linkage factors include Skepticism (13) on the second, Conflict of Interest (9) on and Building Trust (3), Dominant Culture Pattern (11), Transparency in Dialogue (4) and Competitors' Co-creation Strategies (6), Changing Management Mindset (2), Motivating Customers (5), Balancing Freedom and Control (7), Creating Collaborative Culture (10), Technological Adaptation (12), Task Layout (14), Mode of Interaction (15), Ability to Meet Customer Needs (14), Inability to Cope Change (17), Unclear Expectations (18) and Handling the Blaming Attitude of Customers (20). Moreover, there is no autonomous factor found. The results of MICMAC corroborate the results of ISM and hence are confirming the model.

5.3. Theoretical and Practical Implications of the Study

Theoretical Implications: This study: i) fills the gap in literature and ii) provides base study for further research. Practical Implications: The study insurers can get meaningful insights, can work on eliminating these issues and can be able to work on hurdles on challenges of co-creation. Policy makers can make policies that can be helpful to minimize these challenges. Relevant departments of insurance companies can get help to improve decision making and performance.

5.4. Limitations of the study

Along with the contributions and implications, this study, as other studies, has some limitations as well. Those limitations have three different angles i.e., methodological limitations, data limitations and resources limitations. If we talk about methodology first, then, it is a qualitative methodology using inductive approach and it uses fundamental theories of Boolean algebra, set theory and directed graph theory, so, of course analytical strength is accordingly limited. Secondly, ISM method answers the question "What is related to what?" rather than quantifying the relations. It means, this methodology does not tell cause and pole of relationship. Thirdly, on the stage of constructing ISM model, transitive links are removed and overlooked to simplify it. Fourthly, the responses are accumulated by using the majority rule (statistically saying mode value) rather than having consensus. Now, if we talk about the limitations related to data, then, firstly, the data is collected from a medium sized panel of experts based in Pakistan only. Secondly, the questionnaire used for data collection was a matrix type questionnaire, and it contained quite a number of pairs. It was a difficult one and had the chances of stereo-typing. Thirdly, list of critical success factors has been generated from a review of limited number of studies (hence limited literature has been studied) which is not claimed as exhaustive and there may exist some other factors as well that would have been included in the list. Fourthly, the data ignores the fuzzy values because it has been collected by using bi-valence (0, 1). Fifthly, the data being collected from the Pakistani experts, has limitations regarding generalization accordingly. As far as limitations of resources are concerned, firstly, it is collected in very limited time by a university student, having restricted deadlines and much more to submit on time. Secondly, this was a non-funded study for degree completion on time so it was constrained accordingly.

5.5. Recommendations and future directions

This section formulates recommendations for future researchers to overcome the limitations aforementioned and enhance the frontiers of findings of the study.

- It is recommended that future studies should use advanced quantitative methodologies like SEM, GMM, Wavelet analysis etc. to overcome the limitation regarding qualitative methodology as a choice.
- Even SPSS, TISM, Modified TISM, Polarized TISM might be used to overcome the limitation regarding quantification, cause and effect relationships and pole etc.
- More factors can be explored through inductive and deductive methods and other related issues can also be studied regarding insurance companies and co-creation
- Research can be replicated in different contexts/countries or sectors in order to enhance the theoretical contribution of the study.
- By taking inputs from other different stakeholders, research can be done on the extensive basis.
- Future researchers can explore the challenges in co-creation of service value related to other service sectors or industries as well. Moreover, possible outcomes of co-creation can also be studied after practically handling these challenges in the particular organization.

6. Conclusion

Businesses need to rely on ideas, solutions to the problems from fresh angles and provide customers what they want, in order to be successful globally. This need requires innovation and this innovation requires output from outside the business, to create something innovative and special for their customers. This creates a need to do co-creation. Co-creation let those businesses collaborate with external stakeholders to gather and generate fresh ideas. It also helps to bring answers and solutions to the problems that a business can't generate in-house. Same is the case with service industry. This study focuses on co-creation and its challenges in Pakistani Insurance companies. This study aimed to do a thorough research on those challenges, to present them in a structural model on priority basis and to categorize them on the basis of their driving and dependence power. This is thorough study based on literature review and mixed method, in which the data was collected by 18 experts on panel (respondents) selected on the pre-determined criteria. This study contributed a comprehensive list of 28 challenges faced by Pakistani Insurance companies, found out using literature review method, confirmed by the panel of experts (17 respondents) and then were analyzed by using Interpretive Structural Modelling and MICMAC. Results show that Proper Planning (1) is the most important one and dependent on linkage ones. The maximum challenges are on middle levels on the model and are the Linkage factors, being moderately severe and are interlinked with each other as well as with dependent challenge. It means, linkage factors are somehow responsible, collectively, the Customer's Misbehavior (19) is on bottom level hence least important challenge to focus on, during co-creation process and an independent one by nature. If all the severe and moderately severe challenges are handled, customer's misbehavior will not be a challenge! It is independent in a way that misbehavior might not be due to the problems organization rather it can be due to other factors as well that have no link with co-creation process. Study has practical implications for researchers, insurance businesses, and policy makers and theoretical implications to fill the literature gap. Along with the contributions and implications, this study, as other studies, has some limitations as well. Those limitations have three different angles i.e., methodological limitations, data limitations and resources limitations. Future researchers can use our recommendations to proceed further in research and to overcome the limitations.

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