

# New Directions in Scholarly Research– Some Fearless Innovations & Predictions for 21<sup>st</sup> Century Research

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## New Directions in Scholarly Research– Some Fearless Innovations & Predictions for 21<sup>st</sup> Century Research

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### ABSTRACT

It is well known that scholarly research methods in science and philosophy are changing with time, needs, perception, thinking, and performance. Many research methods are used under the umbrella of both qualitative and quantitative research and many new research methods are being added by many researchers at different point of time. Many new directions in scholarly research methods are initiated by many innovative researchers in order to bring improvements in the quality of research. Such fearless innovations in the form of new models of scholarly research increased the research methods and models for new generations. This paper focuses on the conceptual analysis of some of the possible new directions in scholarly research for 21<sup>st</sup> century including the importance of innovations suitable for the progress in the century by analysing some of the important new scholarly research models which can contribute substantially to the research field. The paper also reviews some of the research analysis frameworks which have added tools, techniques, and values to the scholarly research.

**Keywords:** New research methods, Fearless innovations, Scholarly research models, Out of the box thinking research, Scholarly analysis frameworks.

### 1. INTRODUCTION :

Research is a process of developing new knowledge or a new interpretation of existing knowledge in an effort of finding truth related to a problem, system, or process. In true sense, research is a process of fact-finding exercise in the society with an intention to solve the problem, or improve the system, or innovate a process to improve the quality of life. Research is also a process of investigating answers to a question in a scientific and systematic manner by means of the formulation of the hypothesis, data collection on relevant constructs, analysis and interpreting the results in a new way and reaching to the conclusions as a generalized solution [1]. It is well known that scholarly research methods in science and philosophy are changing with time, needs, perception, thinking, and performance. As time progress new research methods may find their importance due to uncovered new problems and availability of

more and varied data related to different aspects in the society. Currently, many research methods are used under the umbrella of both qualitative and quantitative research and many new research methods are being added by many researchers at different point of time based on requirement. Along with the addition of such new research methods, analysis techniques & strategies are also changing with time and the advents of information communication and computation technology (ICCT) has the greatest effect on such changes [2]. Many new directions in scholarly research are created by many innovative researchers in order to bring improvements in both qualities of research at low cost. Such fearless innovations in the form of new models of scholarly research will further boost the confidence and give inspirations to new researchers to propose and work on their new ideas, new concepts, new models, new analysis framework, and decreases hesitations to use of new avenues of scholarly publication

models. The paper focusses on the conceptual analysis of some of the possible new directions in scholarly research and publications for 21<sup>st</sup> century including the importance of innovations in scholarly research suitable to lead progress in the century by analysing some of the important new scholarly research models which can contribute substantially to the research field, some of the research analysis frameworks which have added tools, techniques, and values to scholarly research.

## **2. OBJECTIVES OF THE STUDY :**

The study focuses on the conceptual analysis of some of the possible new directions in scholarly research and publications for the 21<sup>st</sup> century. The objective of this study include but not limited to :

- (1) To discuss the importance of innovations in scholarly research in the 21<sup>st</sup> century.
- (2) To identify and analyse some of the important new scholarly research models which can contribute substantially to the research field.
- (3) To identify and analyse various research analysis frameworks which have added tools and values to scholarly research.

## **3. INNOVATIONS IN SCHOLARLY RESEARCH IN THE 21<sup>ST</sup> CENTURY :**

Research and development is a continuous process of human prosperity and is the consequence of human thinking abilities. Research and development has a long history started from human species on earth. Research and development has an objective of harvesting the natural resources to a higher extent to support human prosperity and quality life by ensuring an equitable, sustainable, and stable society on earth. Research is a fundamental process of systematic thinking on problems or improvements required for human life to fulfil their basic needs, advanced wants, and expected desires. Research in many fields leads innovation of developing a new product/service or improvements in existing products or services. Innovative firms involved in commercialization of new products or a service which helps to fulfil basic needs, advanced wants, and expected desires of the people on the earth. Scholarly research involves both

systematic research and systematic documentation to disseminate the research outcomes for innovation or further research. Scholarly research has an objective of research for solving a problem systematically and providing an opportunity for further research. Changes are always happening in every system and hence in the area of scholarly research methods.

Through innovations, scholarly research methods are continuously expanded and as the definition of same is becoming broader and broader with time. As per the scope and implications is concerned, the research methodologies become broader and wider from century to century. In the 21st century, though, the beginning stage, there are many innovations to develop new scholarly research methods with many intentions including to solve new problems, to include more people in systematic research, to simplify many complex research procedures, to disclose new ways to generate new knowledge etc. As the education level of the people enhances and more and more people getting access to higher education, innovations in developing new methods in scholarly research to identifying new affecting factors, new relationships between variables, and new elements involved in the problems [3]. According to Taylor and Coffey [4] innovation is not necessarily confined to the creation of new methods and can equally be applied to advances or developments of ‘tried and tested’ research methods but it is also defined as ‘the creation of new designs, concepts and ways doing things’. Such new methods, designs, concepts, and ways of doing things in scholarly research leading to new research models for creating new knowledge or to interpret the existing knowledge on a given thing in a new way through innovative analysis frameworks.

## **4. NEW SCHOLARLY RESEARCH MODELS :**

There are many methodologies and methods used in scholarly research in both natural sciences and philosophical sciences. These methodologies and methods lead to many models in scholarly research. Table 1 lists some

of the important and newly developed qualitative research methods during recent years other than empirical research methods. Some of

such models are further discussed and reviewed below along with their objectives and procedures.

**Table 1 :** Some of the Qualitative Research Methods & Models used in this century

S. No.	Qualitative Research Methods	Objective	Procedure
1	Observation Method	Observation of the system and its environment	Data collection via observation [5]
2	Content Analysis	Investigating a report systematically	Structured and systematic [6]
3	Focus Group Method	Collection of information from group	Analysing the information from focus groups [7-9]
4	Personal Interview method	Opinion/experience Collection	May be unstructured, semi-structured and structured [10]
5	Projective techniques	Idea of projecting one-self or feelings on ambiguous objects	Indirect questioning [11]
6	Socio-metric analysis	Analysing information obtained from different groups	Involves measuring the choice, communication and interpersonal relations of people in different groups [12]
7	Industry Analysis	Analysing certain issues of an industry	Use suitable analysing framework [13]
8	Company / NGO Analysis	Analysing certain issues of a company or an NGO	Use suitable analysing framework [14-15]
9	Patent Analysis	Analysing a patent granted on a new product or new process or new system	Use of suitable framework to analyse technology/ process [16]
10	Ideal System based Model Analysis	Identifying the research gap by comparing present characteristics and ideal characteristics of a system	Use of developing Ideal system model and its characteristics by classifying them as input, process, output, and environmental characteristics [17]
11	Accountability Model	Optimizing the organizational human elements performance	Continuously improving the performance using the eight elements of Theory of Accountability [18, 19]

**4.1 Industry Analysis :**

Industry analysis is a tool to study a given industry in depth in terms of its products and services, various competitors and their strategies, challenges, opportunities, and contributions of that industry to the business and the society. Industry analysis gives an idea to new researchers about the historical development of that industry, contribution of that industry to national growth including GDP,

various supporting industries to that industry, support of that industry to other industries, the nature of support from the government for sustainability etc. Industry analysis focus on collecting information from different firms operating in that industry, analysing and comparing various issues of these firms in a given industry, in terms of their strengths, weakness, opportunities and challenges, the firm’s ability to adopt technology for automation

of various processes, the corporate social responsibilities and contribution to environmental sustainability. The study also focuses on identifying various innovations and suggestions on possible innovations in that industry in terms of resource usage, improving productivity, maintaining sustainability and growth, and to increase overall contribution to society. The industry analysis can make use of various analysis frameworks like SWOT, Porters five force competitive model, Performance analysis, Comparative study with other industries, Financial analysis, Heptalysis analysis, Current technology, Predictive analysis etc. The industry analysis allows researchers to develop new interpretations based on analysis of existing contributions and possible new contributions of the chosen industry by suggesting optimum solutions for its sustainability and growth [13].

#### **4.2 Company Analysis :**

Company analysis is a case study method which allows the researcher to study the historical growth, current performance, and the future opportunities for a company in a given industry. Company analysis is an important tool for research in business management due to its ability to identify new opportunities for a company under consideration by suggesting a new and improved way of doing business, handling resources, facing competitions, encashing opportunities, formulating strategies on investments and expansions etc. Company analysis mainly focuses on identifying and interpreting the company opportunities and challenges in a new way by providing an independent thinking opportunity to researchers. Company analysis has two purposes : (i) Studying a company in terms of its past, present, and future business, and (ii) Analysing its internal capabilities and challenges and environmental opportunities and threats. Company analysis may also focus on various issues related to different functional areas of business or its production/operations strategies, business strategies, and corporate strategies. Various analysis frameworks are used to study a given company to identify one or more problems, find various alternative solutions,

identifying optimum solution and suggestions on implementation of such solution. Analysis frameworks to be used include SWOC analysis of a company, ABCD analysis of a product/service or its strategy on its stakeholders, PESTILE analysis for studying its business environment, Performance analysis which includes financial performance, marketing performance, and productivity etc. A systematic company analysis provides an opportunity to a researcher to apply various existing business management theories on company operations to test the validity and gives the opportunity to develop new ideas for developing new theories based on changes in technology, changes in people perception and changes in the business environment [14-15, 20].

#### **4.3 NGO Analysis :**

The objective of not for-profit nongovernment organizations (NGO) is doing some service to the society by utilising freely available resources collected from various methods. The services provided by NGO usually focus on helping needy people, animals, and the environment for sustainability. NGO analysis method follows the company analysis model with an objective and strategy to achieve its goal effectively. NGO analysis includes NGO capacity analysis, NGO project analysis, SWOT analysis of NGO, NGO fund collection strategy, Effective utilisation of NGO grants, NGO contribution analysis, NGO sustainability analysis, NGO network analysis etc [21].

#### **4.4 Public Sector Organizational Analysis :**

Organizations which are founded and managed by public funds initiated and controlled by local or country governments have an objective of providing social justice and equality while serving to the society. Though similar analysis frameworks are used for analysing public sector organizations, the interpretation has slightly different objective of providing social justice instead of mere profit. Focus on organizational efficiency, individual accountability, and fund utilization are to be considered as priority factors in such analysis. Issues like service quality, political interference, corruption, and lobbies are also some times becomes important for analysis and interpretation [22, 23].



#### **4.5 Private Sector Organizational Analysis :**

The objective of private sector organizations is different from public sector organizations. Private sector organizations are self-funded and self-managed and hence self-financial entities having the responsibility of creating profit for survival and sustainability. The strategies of private sector organizations are different compared to public sector organizations due to the fact that they have a tight budget at the bottom level and flexible & rational decision making freedom at any point of time. Based on requirement, they have the freedom to hire new staff, freedom to relieve an employee, freedom to by required resources for genuine reasons etc. Thus, private sector organizations are analysed using a different set of objectives and frameworks. Here, the survival, profit and sustainability are important parameters to interpret the success of the organization unlike the social justice and equality objective of public sector organizations [24]. Various analysis tools like profit analysis, performance analysis, SWOC analysis, Automation and technology analysis, Stake-holders value analysis, predictive analysis etc.

#### **4.6 Patent Analysis :**

Patent analysis is a newly introduced research method which allows researchers to analyse a patent in a given subject and interpret new things out of it. This method creates an opportunity for young researchers including who are studying in undergraduate or postgraduate courses. This new method of doing research especially for beginners in applied sciences including engineering, business management, agricultural sciences, pharmaceutical sciences, medical sciences, paramedical sciences etc can make use of a huge number of patents filed by different countries all over the world every year. Patent analysis is nothing but the detailed examination of the structure, elements, and various affecting factors of the patent. The patent analysis includes the process of breaking the invention or the process into smaller parts called elements or components in order to understand it in a better way. The analysis also helps to uncover and understand the cause-effect relationships and hence provides a basis for

problem solving and decision making. The analysis of patents may lead to better understanding of that subject which may lead to a better or new interpretation of the concepts related to that issue of patent, and hence such analysis can be called as a method of research.

Patent analysis may use many analysis frameworks used in business management which include SWOT/SWOC analysis, ABCD analysis, PESTEL analysis, Competitive forces analysis etc. These analysis frameworks make use of some constructs to examine the critical constituent elements or components and affecting factors based on some measurable constructs for detailed analysis. Apart from these, some new analysis like Patent opportunity analysis, Patent performance analysis, Patent Innovation analysis, Patent technology analysis, Patent value analysis etc can be used for detailed analysis. Thus, any scholarly researcher can either create new knowledge or interpret new issues to qualify it as a research method through patent analysis [25].

#### **4.7 Medical Case Analysis :**

Various new medical problems and diseases are research problems for analysis for doctors and medical practitioners. These analysis throws light on possible reasons of such diseases, the characteristics of the diseases, precautions to be taken, medication, consequences, and precautions etc and either adds new knowledge or presents new interpretations on the such problems. Such analysis framework usually contains the case report of such disease including various characteristics, observations and responses, treatment methods and medications, patient response on medication, duration of recovery, etc. This also may include the precautions to be taken to avoid such health problems [26].

#### **4.8 Ideal System Model Method :**

This is a new research method consisting of determining the gap between reality and expectations. Ideal system model consists of developing a model of a system with ideal characteristics. Ideal characteristics are set of input characteristics, process characteristics, output characteristics, and external environmental characteristics of a system under

consideration called ideal system which is a hypothetical system of that kind. Once the ideal system model for a practical system is developed, the researcher compares the gap between real system and its corresponding ideal system and suggests the strategies to improve the real system towards ideal system by finding the possibilities of improving the real system characteristics towards ideal system characteristics. Many ideal system models are developed and the possibility of realizing them using ICCT or nanotechnology are analysed [27-41].

**4.9 Accountability Model :**

Any organizational performance mainly depends on the performance of the people working for it. Different analysis models on organizational performance is developed in 20<sup>th</sup> century includes Theory X, Theory Y, and Theory Z [42-43]. These theories were developed based on certain behaviour of people working in organizations. Recently a new organizational performance theory of 21<sup>st</sup> century called Theory of Accountability (Theory A) is developed and analysed [44]. This theory A is based on identifying and stimulating the responsibility of an employee of any cadre to boost his confidence and motivation to enhance his/her contribution to organizational objectives. Theory of Accountability is developed to identify the responsibility of an employee systematically and inspire them to achieve their and organizational goal. Theory A has eight components which include : (1) Planning, (2)

Target setting, (3) Motivation, (4) Work Strategies, (5) Responsibility, (6) Role model, (7) Monitoring & Guiding, and (8) Accountability. Any organizational performance and employee performance can be analysed based on the above components of theory A and studying how these components contribute for improving its output by making its people delivering targets as responsibility, feeling of creativity and contribution for motivation, identifying with the organization as commitment, and accountability as a hallmark of efficiency [45-48].

**5. NEW SCHOLARLY ANALYSIS FRAMEWORKS :**

Various frameworks are used in scholarly research to analyze a given issue or situation in organizations or society. These frameworks make use of certain factors or characteristics to analyse based on some constructs or parameters. Such frameworks allow the researchers to study a given model/system in-depth and analyse them in terms various factors and elements from various internal and external frame of references [49]. Some of such frameworks include SWOC analysis, PESTLE analysis, McKinsey 7S framework, ICDT model, Portor's five force model, ABCD listing technique etc. The following table 2 lists various qualitative research frameworks used in analysing different models or systems along with their objectives, procedure and inventors during recent years.

**Table 2 :** Some of the Qualitative Research Frameworks used in this century

S. No.	Qualitative Analysis Frameworks	Objective	Procedure	Reference
1	SWOC Analysis	Analysis of internal abilities and future possibilities of an organization	Identifying strengths, weakness, opportunities, and challenges of an organization	Humphrey, A. S. (2005). [50]
2	PESTLE Analysis	Analysis of external opportunities of an organization	Political, Economic, Sociological, Technological, Legal, & Environmental analysis.	Gupta, A. (2013). [51]
3	ABCD Analysis	Analysis of determinant issues, affecting factors and constituent elements	Affecting Factors and Constituent critical elements based on Key	Aithal P. S. et al of SIMS, India,(2015).

		of a system/strategy under four constructs.	attributes of various Determinant issues of a concept, business model, strategy, or a system, under four constructs named as Advantages, Benefits, Constraints, and Disadvantages.	[52]
4	Performance Analysis	Analysing the outcome performance based on the objective of the organization which include measurement of financial performance, productivity, efficiency, and effectiveness.	Measure of Annual profit and sustainability, Utilization of various resources, Efficiency based on technology usage, time, and cost, Quality and stakeholder's satisfaction level, Product and service performance, etc.	Oh, H. (2001). [53]
5	Accountability Analysis	To know employees understanding and dedication in fulfilling their responsibilities and commitment as per their job profile towards realizing the organizational goal.	Determination of organizational ability to set the objectives of the employees for individual planning, group and individual target setting, motivating to achieve the objectives, supporting to develop working strategies for winning, teaching their responsibilities	Aithal P. S. et al (2016). [54]
6	Heptalysis Analysis	Organizations business opportunity analysis	Market opportunity, Product/solution, Execution plan, Financial engine, Human capital, Potential return, and Margin of safety.	Pejman Makhfi. (2005). [55]
7	VPEC-T analysis	Used when the interaction and communication context is unordered, complex or chaotic, and liable to result in misunderstanding.	Values, Policies, Events, Content, and Trust.	David Hunt, & Liz Bacon, 2009. [56]
8	Six Thinking Hat Analysis	Problem solving by analysing it using a lateral thinking from six different frame of references	Managing Blue hat thinking, Information White hat thinking, Emotions Red hat thinking, Discernment Black hat thinking, Optimistic response	Edward de Bono, (1985). [57]



			Yellow hat thinking, Creativity Green hat thinking.	
9	Technology Analysis	Analysing a suitable technology for a given business or industry to improve performance and hence long-term profitability	To identify a suitable technology and adopting it suitably in its business model, processes, and strategy to fulfil its objectives either through improving the efficiency, or decreasing the cost, or by providing value added products or services	Chiesa, V., & Mazini, R. (1998). [58]
10	Predictive Analysis	To address decision making problems related to predicting the future of a system or an activity	Collect information on present trends, develop postulates based on present trends, generate argument based description, and predict the future.	Aithal P. S. (2019). Unpublished. [59]

**5.1 SWOC Analysis Framework :**

SWOC analysis is commonly used to evaluate organizational Strengths, Weaknesses, Opportunities, and Challenges to fulfil its objectives. SWOC analysis mainly focuses on identifying the internal environmental situations of an organization which are favourable and unfavourable to realize its objective. The SWOC analysis also gives information that helps in matching the organizational internal resources and capabilities to compete with its competitors [50]. SWOC analysis framework is a tool for new researchers to generate new interpretation on the internal capability of an organization in terms of its survivability, sustainability, and profitability in carrying out its business model for future. The SWOC matrix consists of a list of strengths, weakness, opportunities, and challenges in terms of organizational infrastructure, technology usage, human resources, marketing ability, financial status, information utilization in decision making, competency, innovation ability, and the ability to predict the future. SWOC analysis framework can be used in both organizational and individual internal analysis [60-61].

**5.2 ABCD Analysis Framework :**

ABCD analysis framework consisting of qualitative ABCD listing and Quantitative

ABCD analysis is recently introduced as a general framework to analyse any system, model, concept, strategy, technology, material, etc. by considering the various frame of references called determinant issues [52]. In this technique, for every determinant issue the analyser has to choose some key attributes and for every key attribute, the affecting factors have to be determined under four constructs called Advantages, Benefits, Constraints, and Disadvantages. Since various affecting factors of the system or model are systematically identified under different determinant issues, the framework is also named as the factor analysis method. Further, this framework allows to identify constituent elements for each affecting factor and based on weightage score, the analyser can identify critical constituent elements. The systematic analysis of International business and its environments using ABCD analysing framework is under progress and will be published elsewhere. Here, we have used ABCD listing method which is the qualitative part of the technique to analyse the International Business model of a multinational firm [62-82].

**5.3 PESTILE Analysis Framework :**

PESTEL analysis is a framework used to analyse the macro-environment of a business. PESTEL

analysis can be used to study opportunities and challenges in international business investment [51]. The components of PESTEL analysis framework are Political environment of the business organization to support or defeat the organizational business, Economic environment of the country and various stakeholders and its effect on organizational sustainable business, Social environment of the organization and the country in support or against the organizational business, Technological environment of the organization for automation, cost control, to minimizing the wastage, and to effectively use e-business model by organization to enhance business value, Environmental degradation and its control by the organization, and legal issues to be followed by the organization while doing business in the country [51]. The framework also consists of the impact of this analysis on investment decisions on international business by multinational firms [83].

#### **5.4 Performance Analysis Framework :**

The objective of performance analysis is analysing the outcome performance based on the objective of the organization which includes measurement of financial performance, productivity, efficiency, and effectiveness [53, 84]. Performance measurement & analysis procedures use the measurement of Annual profit and sustainability, Utilization of various resources, Efficiency based on technology usage, time, and cost, Quality and stakeholder's satisfaction level, Product and service performance, etc. It also includes how measuring organizational performance based on its best practices [85], based on six core elements of business process management [86], based on determining financial ratios [87], various conceptual issues related to the assessment of organizational performance [88], HRD and HRM perspectives on organizational performance [89] etc. It also studied that organizational performance also depends on organizational learning and knowledge management [90].

#### **5.5 Accountability Analysis Framework :**

The objective of accountability analysis is to know employees understanding and dedication in fulfilling their responsibilities and

commitment as per their job profile towards realizing the organizational goal. It also involves in determination of organizational ability to set the objectives of the employees for individual planning, group and individual target setting, motivating to achieve the objectives, supporting to develop working strategies for winning, Teaching their responsibilities [91-97], showing the role models to follow, continuous monitoring and guiding and finally fixing the accountability by means of incentives, and rewards for enhanced performance and punishment for poor performance. The analysis can include accountability of employees in public or private type organizations, the accountability parameters, individual and group accountability [98-99], accountability based on audit [100], accountability based on decentralization of administrative responsibilities [101], and mechanisms of accountability in organizations [102]. It also includes how to manage employee accountability in organizations effectively to increase the productivity and effectiveness of organizational human resources [103].

#### **5.6 Technology Analysis Framework :**

Technology is generally defined as an application of scientific knowledge to solve a real world problem with a definite purpose. Many general purpose technologies and specific purpose technologies are used to solve different type of problems including need based, wants based and desire based problems of individuals and of society. Since, the need based, wants based, and desire based problems are changing with time due to changes in internal and environmental conditions of human beings in the society, there is a continuous improvement in technology or discovery of new technologies are required. The management of technology effectively, identifying its applications, and effective utilization of such technologies to solve problems or providing comfortability for human beings is the objective of the technology analysis framework [104]. The technology analysis by business organizations focuses on to identify a suitable technology and adopting it suitably in its business model, processes, and strategy [105] to fulfil its objectives either

through improving the efficiency, or decreasing the cost or by providing value added products or services [106-107]. The technology analysis also identifies the technology development and adoption policy of an organization or industry along with further capital investment plan [108-109]. Technology analysis framework supports the management of the organization to evaluate the current technologies used by them and their competitors to create core competencies [110] and allows to develop a roadmap - a planning framework for evolution and revolution [111]. Though a general and systematic technology analysis framework is yet to be developed (which is a research gap identified in this study), one can creating a framework for research on systemic technology innovations [112] using a method of monitoring trends in new patents filed in related areas [113] using patent analysis technique [114]. The technology analysis framework may contain the approach of growth of a technology used in the organization as general-purpose technology or even universal technology [115] assessment of the relationship between information technology investments and firm performance [116].

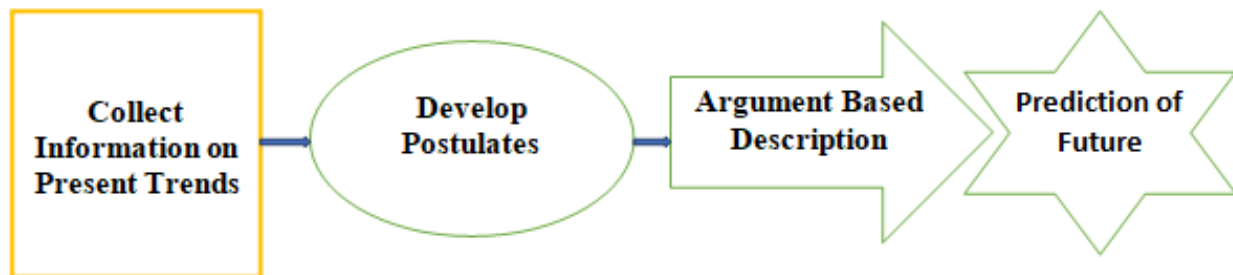
Technology analysis has an objective of analysing a suitable technology for a given business or industry to improve performance and hence long-term profitability. It also includes the assessment of presently used technology, its consequence in creating core competency and the firm's involvement in R & D to further develop it in order to differentiate it from other competitors. Technology analysis can be carried

out by studying present technology used in an organizational business, its impact on productivity, wastage, developing firms' core competency, and short & long term profitability. The procedure also includes the prediction of optimum technology suitable for that organization in future to develop and maintain monopoly business for a longer period of time.

**5.7. Predictive Analysis Framework :**

A simple method called predictive analysis is recently developed to address decision making problems related to predicting the future. Predictive analysis is an analytical method consisting of several techniques to predict future possibilities using present trends. It can be qualitative or quantitative. It is different from predictive analytics in such a way that it will support to predict future. On the other hand, predictive analytics is a method of generating information from historically available dataset to determine and predict future trends and outcomes.

Predictive analysis is a method consisting of several techniques to predict future possibilities using present trends. It is different from predictive analytics in such a way that it will support to predict future. On the other hand, predictive analytics is a method of generating information from historically available dataset to determine and predict future trends and outcomes. A qualitative predictive analysis is used to predict the future possibilities by studying present trends using self-developed predictive analysis model shown in figure 1.



**Fig. 1 :** Predictive Analysis Model to predict future [59]

The procedure of predictive analysis of a system or an activity encompasses 4 steps : Collect information on present trends, Develop

postulates based on present trends, Generate argument based description, and Predict the future.

## 6. CONCLUSION :

Changes are essential in every part of life in society and hence in research methods too. With improved perceptions and availability of readymade data online about many things related to natural and philosophical sciences in the society, there are enhanced opportunities to making innovations in thinking, analysing, and interpreting issues, concepts, organizations and working methods. Since research is broadly defined as the creation of new knowledge through new discoveries, new theories or new concepts or new interpretation of existing knowledge through a different frame of analysis, there are ample opportunities to do new research. Accordingly, new research methods can be developed to suit the usage of ubiquitously available information through the development of new innovative research models. Some of the of innovations in scholarly research methods suitable to lead new directions are reviewed by analysing few important newly developed scholarly research models including Industry analysis, Company analysis, NGO analysis, Public sector and private sector organizational analysis, Patent analysis, Medical case analysis model, Ideal system model, and Accountability model method which can contribute substantially to the research field. Similarly, some of the research analysis frameworks including SWOC analysis framework, ABCD analysis framework, PESTEL analysis framework, Performance analysis framework, Accountability analysis framework, Technology analysis framework, and Predictive analysis framework which have added tools, techniques, and values to scholarly research are also discussed and reviewed along with their objectives and procedures. Such fearless innovations in scholarly research discussed in this review opened new directions for young researchers and given confidence to future contributions to the field of qualitative scholarly research.

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