

# INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

I  
J  
R  
C  
M



A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

*Indexed & Listed at:*

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar,

Indian Citation Index (ICI), J-Gate, India [link of the same is duly available at Inlibnet of University Grants Commission (U.G.C.)],

Index Copernicus Publishers Panel, Poland with IC Value of 5.09 (2012) & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 6408 Cities in 196 countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

<http://ijrcm.org.in/>

# CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	<b>EFFECT OF CREDIT RISK MANAGEMENT ON FINANCIAL PERFORMANCE: AN EMPIRICAL STUDY OF NEPALESE COMMERCIAL BANKS</b>  <i>Dr. BISHNU PRASAD BHATTARAI</i>	1
2.	<b>INNOVATIONS IN MARKET SEGMENTATION: A REVIEW</b>  <i>AMANDEEP SINGH &amp; ASHU JAIN</i>	7
3.	<b>A CRITICAL ANALYSIS OF FACTORS INFLUENCING CUSTOMER'S PERCEPTION TOWARDS THE INTERNET BANKING</b>  <i>Dr. GANESH MAYWADE</i>	11
4.	<b>NEED OF DESIGN THINKING AND INNOVATION IN BUSINESS ENVIRONMENT</b>  <i>AARUSHI JAIN</i>	14
5.	<b>A STUDY ON THE IMPACT OF RERA ACT ON CUSTOMERS AT SHUSHMITHA SOUTHERN HOUSING, CHENNAI</b>  <i>SHUSHMITHA.R</i>	19
	<b>REQUEST FOR FEEDBACK &amp; DISCLAIMER</b>	21

**FOUNDER PATRON****Late Sh. RAM BHAJAN AGGARWAL**

Former State Minister for Home &amp; Tourism, Government of Haryana

Former Vice-President, Dadri Education Society, Charkhi Dadri

Former President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

**CO-ORDINATOR****Dr. BHAVET**

Former Faculty, Shree Ram Institute of Engineering &amp; Technology, Urjani

**ADVISOR****Prof. S. L. MAHANDRU**

Principal (Retd.), Maharaja Agrasen College, Jagadhri

**EDITOR****Dr. NAWAB ALI KHAN**

Professor &amp; Dean, Faculty of Commerce, Aligarh Muslim University, Aligarh, U.P.

**CO-EDITOR****Dr. G. BRINDHA**

Professor &amp; Head, Dr.M.G.R. Educational &amp; Research Institute (Deemed to be University), Chennai

**EDITORIAL ADVISORY BOARD****Dr. TEGUH WIDODO**

Dean, Faculty of Applied Science, Telkom University, Bandung Technoplex, Jl. Telekomunikasi, Indonesia

**Dr. M. S. SENAM RAJU**

Professor, School of Management Studies, I.G.N.O.U., New Delhi

**Dr. JOSÉ G. VARGAS-HERNÁNDEZ**

Research Professor, University Center for Economic &amp; Managerial Sciences, University of Guadalajara, Guadalajara, Mexico

**Dr. CHRISTIAN EHIOBUCHÉ**

Professor of Global Business/Management, Larry L Luig School of Business, Berkeley College, USA

**Dr. SIKANDER KUMAR**

Vice Chancellor, Himachal Pradesh University, Shimla, Himachal Pradesh

**Dr. BOYINA RUPINI**

Director, School of ITS, Indira Gandhi National Open University, New Delhi

**Dr. MIKE AMUHAYA IRAVO**

Principal, Jomo Kenyatta University of Agriculture &amp; Tech., Westlands Campus, Nairobi-Kenya

**Dr. SANJIV MITTAL**

Professor &amp; Dean, University School of Management Studies, GGS Indraprastha University, Delhi

**Dr. D. S. CHAUBEY**

Professor &amp; Dean (Research &amp; Studies), Uttaranchal University, Dehradun

**Dr. A SAJEEVAN RAO**

Professor &amp; Director, Accurate Institute of Advanced Management, Greater Noida

**Dr. NEPOMUCENO TIU**

Chief Librarian &amp; Professor, Lyceum of the Philippines University, Laguna, Philippines

**Dr. RAJENDER GUPTA**

Convener, Board of Studies in Economics, University of Jammu, Jammu

**Dr. KAUP MOHAMED**

Dean &amp; Managing Director, London American City College/ICBEST, United Arab Emirates

**Dr. DHANANJOY RAKSHIT**

Dean, Faculty Council of PG Studies in Commerce and Professor & Head, Department of Commerce, Sidho-Kanho-Birsha University, Purulia

**Dr. SHIB SHANKAR ROY**

Professor, Department of Marketing, University of Rajshahi, Rajshahi, Bangladesh

**Dr. S. P. TIWARI**

Head, Department of Economics & Rural Development, Dr. Ram Manohar Lohia Avadh University, Faizabad

**Dr. SRINIVAS MADISHETTI**

Professor, School of Business, Mzumbe University, Tanzania

**Dr. ABHAY BANSAL**

Head, Department of Information Technology, Amity School of Engg. & Tech., Amity University, Noida

**Dr. ARAMIDE OLUFEMI KUNLE**

Dean, Department of General Studies, The Polytechnic, Ibadan, Nigeria

**Dr. ANIL CHANDHOK**

Professor, University School of Business, Chandigarh University, Gharuan

**RODRECK CHIRAU**

Associate Professor, Botho University, Francistown, Botswana

**Dr. OKAN VELI ŞAFAKLI**

Professor & Dean, European University of Lefke, Lefke, Cyprus

**PARVEEN KHURANA**

Associate Professor, Mukand Lal National College, Yamuna Nagar

**Dr. KEVIN LOW LOCK TENG**

Associate Professor, Deputy Dean, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia

**Dr. BORIS MILOVIC**

Associate Professor, Faculty of Sport, Union Nikola Tesla University, Belgrade, Serbia

**SHASHI KHURANA**

Associate Professor, S. M. S. Khalsa Lubana Girls College, Barara, Ambala

**Dr. IQBAL THONSE HAWALDAR**

Associate Professor, College of Business Administration, Kingdom University, Bahrain

**Dr. DEEPANJANA VARSHNEY**

Associate Professor, Department of Business Administration, King Abdulaziz University, Saudi Arabia

**Dr. MOHENDER KUMAR GUPTA**

Associate Professor, Government College, Hodal

**Dr. BIEMBA MALITI**

Associate Professor, School of Business, The Copperbelt University, Main Campus, Zambia

**Dr. ALEXANDER MOSESOV**

Associate Professor, Kazakh-British Technical University (KBTU), Almaty, Kazakhstan

**Dr. VIVEK CHAWLA**

Associate Professor, Kurukshetra University, Kurukshetra

**Dr. FERIT ÖLÇER**

Professor & Head of Division of Management & Organization, Department of Business Administration, Faculty of Economics & Business Administration Sciences, Mustafa Kemal University, Turkey

**Dr. ASHOK KUMAR CHAUHAN**

Reader, Department of Economics, Kurukshetra University, Kurukshetra

**Dr. RAJESH MODI**

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

**YU-BING WANG**

Faculty, department of Marketing, Feng Chia University, Taichung, Taiwan

**Dr. SAMBHAVNA**

Faculty, I.I.T.M., Delhi

**Dr. KIARASH JAHANPOUR**

Dean of Technology Management Faculty, Farabi Institute of Higher Education, Karaj, Alborz, I.R. Iran

**Dr. TITUS AMODU UMORU**

Professor, Kwara State University, Kwara State, Nigeria

**Dr. SHIVAKUMAR DEENE**

Faculty, Dept. of Commerce, School of Business Studies, Central University of Karnataka, Gulbarga

**Dr. BHAVET**

Former Faculty, Shree Ram Institute of Engineering & Technology, Urjani

**Dr. THAMPOE MANAGALESWARAN**

Faculty, Vavuniya Campus, University of Jaffna, Sri Lanka

**Dr. VIKAS CHOUDHARY**

Faculty, N.I.T. (University), Kurukshetra

**SURAJ GAUDEL**

BBA Program Coordinator, LA GRANDEE International College, Simalchaur - 8, Pokhara, Nepal

**Dr. DILIP KUMAR JHA**

Faculty, Department of Economics, Guru Ghasidas Vishwavidyalaya, Bilaspur

**FORMER TECHNICAL ADVISOR**

**AMITA**

**FINANCIAL ADVISORS**

**DICKEN GOYAL**

Advocate & Tax Adviser, Panchkula

**NEENA**

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

**LEGAL ADVISORS**

**JITENDER S. CHAHAL**

Advocate, Punjab & Haryana High Court, Chandigarh U.T.

**CHANDER BHUSHAN SHARMA**

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

**SUPERINTENDENT**

**SURENDER KUMAR POONIA**

## CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to the recent developments & practices in the areas of Computer Science & Applications; Commerce; Business; Finance; Marketing; Human Resource Management; General Management; Banking; Economics; Tourism Administration & Management; Education; Law; Library & Information Science; Defence & Strategic Studies; Electronic Science; Corporate Governance; Industrial Relations; and emerging paradigms in allied subjects like Accounting; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Rural Economics; Co-operation; Demography; Development Planning; Development Studies; Applied Economics; Development Economics; Business Economics; Monetary Policy; Public Policy Economics; Real Estate; Regional Economics; Political Science; Continuing Education; Labour Welfare; Philosophy; Psychology; Sociology; Tax Accounting; Advertising & Promotion Management; Management Information Systems (MIS); Business Law; Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labour Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; International Relations; Human Rights & Duties; Public Administration; Population Studies; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism & Hospitality; Transportation Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic; Web Design and emerging paradigms in allied subjects.

Anybody can submit the **soft copy** of unpublished novel; original; empirical and high quality **research work/manuscript** **anytime** in **M.S. Word format** after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. [infoijrcm@gmail.com](mailto:infoijrcm@gmail.com) or online by clicking the link **online submission** as given on our website ([FOR ONLINE SUBMISSION, CLICK HERE](#)).

## GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: \_\_\_\_\_

**THE EDITOR**

IJRCM

**Subject:** SUBMISSION OF MANUSCRIPT IN THE AREA OF \_\_\_\_\_.

**(e.g. Finance/Mkt./HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)**

**DEAR SIR/MADAM**

Please find my submission of manuscript titled ‘ \_\_\_\_\_ ’ for likely publication in one of your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published anywhere in any language fully or partly, nor it is under review for publication elsewhere.

I affirm that all the co-authors of this manuscript have seen the submitted version of the manuscript and have agreed to inclusion of their names as co-authors.

Also, if my/our manuscript is accepted, I agree to comply with the formalities as given on the website of the journal. The Journal has discretion to publish our contribution in any of its journals.

**NAME OF CORRESPONDING AUTHOR** :  
 Designation/Post\* :  
 Institution/College/University with full address & Pin Code :  
 Residential address with Pin Code :  
 Mobile Number (s) with country ISD code :  
 Is WhatsApp or Viber active on your above noted Mobile Number (Yes/No) :  
 Landline Number (s) with country ISD code :  
 E-mail Address :  
 Alternate E-mail Address :  
 Nationality :

\* i.e. Alumnus (Male Alumni), Alumna (Female Alumni), Student, Research Scholar (M. Phil), Research Scholar (Ph. D.), JRF, Research Assistant, Assistant Lecturer, Lecturer, Senior Lecturer, Junior Assistant Professor, Assistant Professor, Senior Assistant Professor, Co-ordinator, Reader, Associate Professor, Professor, Head, Vice-Principal, Dy. Director, Principal, Director, Dean, President, Vice Chancellor, Industry Designation etc. **The qualification of author is not acceptable for the purpose.**

**NOTES:**

- a) The whole manuscript has to be in **ONE MS WORD FILE** only, which will start from the covering letter, inside the manuscript. ***pdf. version is liable to be rejected without any consideration.***
  - b) The sender is required to mention the following in the **SUBJECT COLUMN of the mail:**  
**New Manuscript for Review in the area of** (e.g. Finance/Marketing/HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)
  - c) There is no need to give any text in the body of the mail, except the cases where the author wishes to give any **specific message** w.r.t. to the manuscript.
  - d) The total size of the file containing the manuscript is expected to be below **1000 KB**.
  - e) Only the **Abstract will not be considered for review** and the author is required to submit the **complete manuscript** in the first instance.
  - f) **The journal gives acknowledgement w.r.t. the receipt of every email within twenty-four hours** and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of the manuscript, within two days of its submission, the corresponding author is required to demand for the same by sending a separate mail to the journal.
  - g) The author (s) name or details should not appear anywhere on the body of the manuscript, except on the covering letter and the cover page of the manuscript, in the manner as mentioned in the guidelines.
2. **MANUSCRIPT TITLE:** The title of the paper should be typed in **bold letters, centered and fully capitalised**.
  3. **AUTHOR NAME (S) & AFFILIATIONS:** Author (s) name, designation, affiliation (s), address, mobile/landline number (s), and email/alternate email address should be given underneath the title.
  4. **ACKNOWLEDGMENTS:** Acknowledgements can be given to reviewers, guides, funding institutions, etc., if any.
  5. **ABSTRACT:** Abstract should be in **fully Italic printing**, ranging between **150 to 300 words**. The abstract must be informative and elucidating the background, aims, methods, results & conclusion in a **SINGLE PARA**. **Abbreviations must be mentioned in full**.
  6. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of **five**. These should be arranged in alphabetic order separated by commas and full stop at the end. All words of the keywords, including the first one should be in small letters, except special words e.g. name of the Countries, abbreviations etc.
  7. **JEL CODE:** Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at [www.aea-web.org/econlit/jelCodes.php](http://www.aea-web.org/econlit/jelCodes.php). However, mentioning of JEL Code is not mandatory.
  8. **MANUSCRIPT:** Manuscript must be in **BRITISH ENGLISH** prepared on a standard A4 size **PORTRAIT SETTING PAPER**. **It should be free from any errors i.e. grammatical, spelling or punctuation. It must be thoroughly edited at your end.**
  9. **HEADINGS:** All the headings must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
  10. **SUB-HEADINGS:** All the sub-headings must be bold-faced, aligned left and fully capitalised.
  11. **MAIN TEXT:**

**THE MAIN TEXT SHOULD FOLLOW THE FOLLOWING SEQUENCE:****INTRODUCTION****REVIEW OF LITERATURE****NEED/IMPORTANCE OF THE STUDY****STATEMENT OF THE PROBLEM****OBJECTIVES****HYPOTHESIS (ES)****RESEARCH METHODOLOGY****RESULTS & DISCUSSION****FINDINGS****RECOMMENDATIONS/SUGGESTIONS****CONCLUSIONS****LIMITATIONS****SCOPE FOR FURTHER RESEARCH****REFERENCES****APPENDIX/ANNEXURE****The manuscript should preferably be in 2000 to 5000 WORDS, But the limits can vary depending on the nature of the manuscript.**

12. **FIGURES & TABLES:** These should be simple, crystal **CLEAR, centered, separately numbered** & self-explained, and the **titles must be above the table/figure. Sources of data should be mentioned below the table/figure. It should be ensured that the tables/figures are referred to from the main text.**
13. **EQUATIONS/FORMULAE:** These should be consecutively numbered in parenthesis, left aligned with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word may be utilised. If any other equation editor is utilised, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that does not have the editor.
14. **ACRONYMS:** These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on its first use in each section e.g. Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.
15. **REFERENCES:** The list of all references should be alphabetically arranged. **The author (s) should mention only the actually utilised references in the preparation of manuscript** and they may follow Harvard Style of Referencing. **Also check to ensure that everything that you are including in the reference section is duly cited in the paper.** The author (s) are supposed to follow the references as per the following:
- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
  - Use **(ed.)** for one editor, and **(ed.s)** for multiple editors.
  - When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc., in chronologically ascending order.
  - Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
  - The title of books and journals should be in italic printing. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
  - For titles in a language other than English, provide an English translation in parenthesis.
  - **Headers, footers, endnotes and footnotes should not be used in the document.** However, **you can mention short notes to elucidate some specific point**, which may be placed in number orders before the references.

**PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:**

**BOOKS**

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

**CONTRIBUTIONS TO BOOKS**

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

**JOURNAL AND OTHER ARTICLES**

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

**CONFERENCE PAPERS**

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

**UNPUBLISHED DISSERTATIONS**

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

**ONLINE RESOURCES**

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

**WEBSITES**

- Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 <http://epw.in/user/viewabstract.jsp>



## NEED OF DESIGN THINKING AND INNOVATION IN BUSINESS ENVIRONMENT

AARUSHI JAIN

ASST. PROFESSOR

SHRI GURU TEGH BAHADUR INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

NEW DELHI

## ABSTRACT

*Turbulent business environments, competition, globalisation and dearth of resources have put significant competitive pressures on many businesses. Rapid specialized technology developments and increased global access to geographically unlimited markets allow consumers seemingly to have infinite choices for the best satisfaction of their needs in choosing desired products. Providing value to customers becomes vital to any organization to sustain the business in future. As a main task of design through design thinking is to seek value to customers, fosters management thinking from chaotic fluctuations in external turbulence and enables sustainable order in actions. This is why awareness of extended design application is becoming crucial nowadays among academics and practitioners. Although Design is most often used to describe an object or end result, it is however a process which can become, if used efficiently, the most powerful tool and foundation for driving a brand or business forward. Design Thinking is a mind set to develop and deliver innovative ideas, change and solutions to complicated problems. It is an activity-based process with a strong emphasis on teamwork. The paper describes new roles for design Thinking in addressing emerging global challenges in business environment.*

## KEYWORDS

business, business environment, challenges, design thinking, innovation.

## JEL CODES

O35, Q55.

## INTRODUCTION

As Prof. Dorst states, 'Recently, design thinking is identified as an exciting new paradigm for dealing with problems in many professions—majorly business and IT sector.' Following the success of Apple, a huge debate took place on the framing, application and use of the term design thinking among large business enterprises. Design thinking term was coined by the business community to denote a process which would infuse creativity into management. Design thinking involves empathetic understanding of a problem, using creative skills to find solutions, and the application of process to derive home success. CEOs such as Apple's Steve Jobs and Renault-Nissan's Carlos Ghosn have exploited the potential of design, placing design strategists in the boardroom to ensure that design is no longer an afterthought to the periphery, but is at the core of an organisation's business processes. Design Thinking provides a solution-based approach to solve problems. It is a way of thinking.

## OBJECTIVES

1. To understand the concept of Design Thinking.
2. The Need and Importance of Design Thinking as a 21<sup>st</sup> Century Skill.
3. How does Design Thinking help in solving problems in 21<sup>st</sup> Century?

## RESEARCH METHODOLOGY

The research paper is an attempt of exploratory research, based on secondary data sourced from journals, magazines, articles, newspapers and media reports.

## LITERATURE REVIEW

Described as a human-centered approach to innovation, Design Thinking can be interpreted as a conceptualization of the way designers think and work (Brown, 2008; Johansson-Sköldberg et al., 2013; Kimbell, 2011; Liedtka, et al., 2013). Many proponents of Design Thinking describe how it takes account also of aspects such as feasibility and viability, and creativity within constraints (Brown, 2008). The most tangible representations of Design Thinking are put forward by IDEO. More recently, the use of Design Thinking has been proposed as a way for individuals to develop their 'creative confidence' (Kelley). This paper therefore seeks to complement the descriptions of Design Thinking in the literature by describing DT in practice, thus investigating what happens when the concept meets an organizational context.

## DESIGN THINKING PROCESS

**Empathy**- It's the ability to see an experience through another person's eyes, to recognize why people do what they do. It's when you go into the field and watch people interact with products and services in real time. What we sometimes refer to as "design research."

**Define**-During the Define stage, we put together the information you have created and gathered during the Empathise stage. This is where you will analyse your observations and synthesise them in order to define the core problems that you and your team have identified. You should define the problem as a problem statement in a human-centred manner.

**Ideate**- In this stage, the team members can start to "think outside the box" to identify new solutions to the problem statement we created, and we can start to look for alternative ways of viewing the problem. There are various ways of Ideation techniques such as Brainstorm, Worst Possible Idea, and SCAMPER. Brainstorm and Worst Possible Idea sessions are majorly used to stimulate free thinking and to expand the problem space. It is important to get as many ideas or problem solutions as possible at the beginning of the Ideation phase.

**Prototypes**- Prototypes may be shared and tested within the team itself, or on a small group of people outside the design team. This is an experimental phase, and the aim is to identify the best possible solution for the problems identified during the earlier stages of this process. The solutions are implemented within the prototypes, and, one by one, they are investigated and are either accepted, improved and re-examined, or rejected based on the requirements.

**Test**- Evaluators test the complete product using the best solutions identified during the prototyping phase. This is the final stage of the model, but in an iterative process, the results generated during the testing phase are often used to redefine one or more problems and inform the understanding of the users, the conditions of use, how people think, behave, and feel, and to empathise.

FIGURE 1: DIAGRAM SHOWING DESIGN THINKING PROCESS



Design Thinking is a process where we are constantly being questioned so it can help us redefine a problem in an attempt to identify alternative strategies and solutions that might not be instantly apparent with our initial level of understanding. Design Thinking is often referred to as 'outside the box thinking', as designers are attempting to develop new ways of thinking that do not abide by the dominant or more common problem-solving methods – just like artists do.

#### NEED OF DESIGN THINKING AND INNOVATION IN BUSINESS ENVIRONMENT

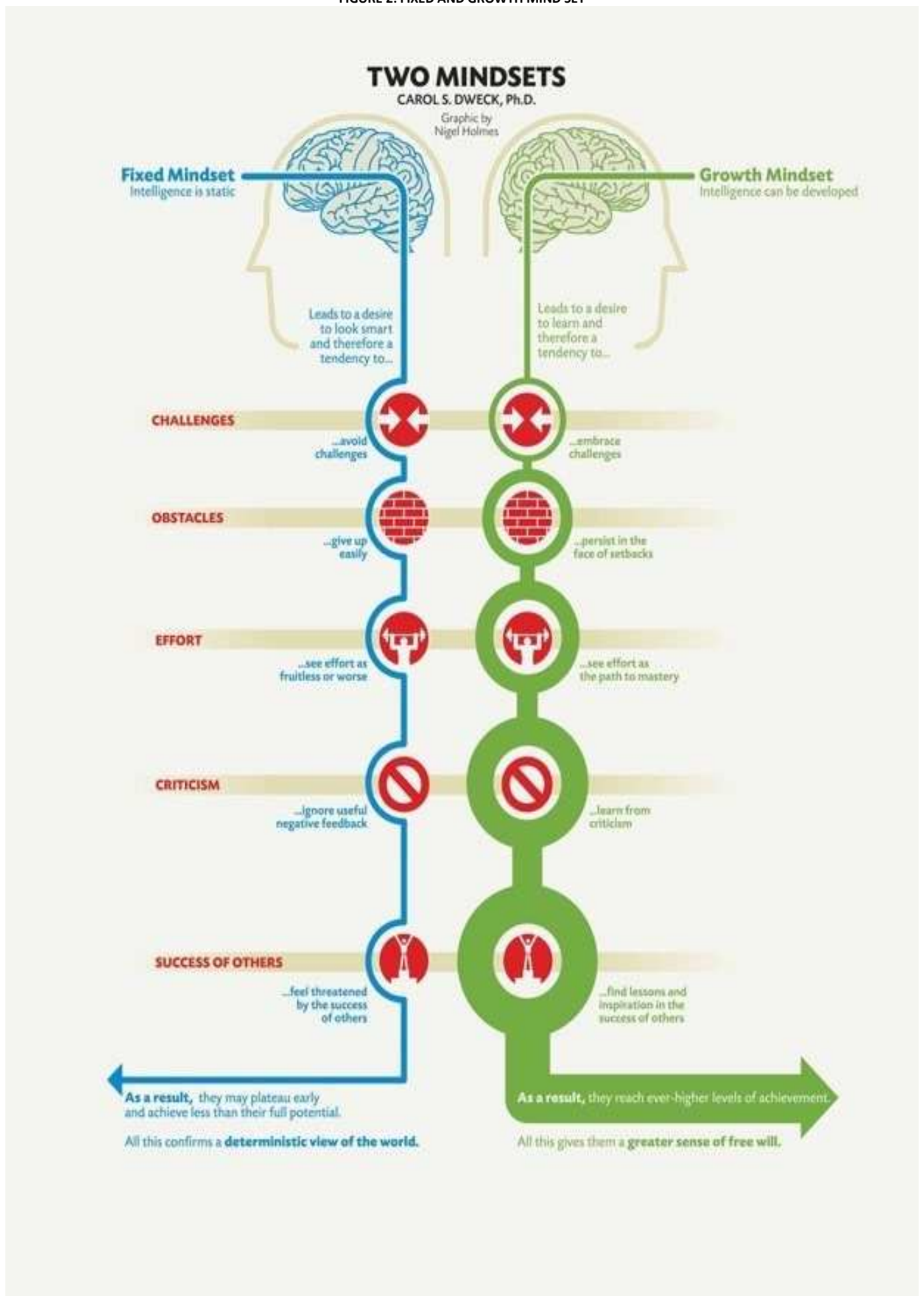
Businesses have slowly come to recognize that design can be used as a differentiator to respond to changing consumer behaviour. Again and again, Fortune 500 names such as Apple, Microsoft, Disney, and IBM have demonstrated the intrinsic value of "design thinking" as a competitive advantage that drives business growth. It is a methodology that employs unique and creative techniques to solve complex problems and find desirable solutions. Traditionally, design thinking was considered as a method used only by designers. However, it is applicable to anything that entails creating innovative ideas and solving problems. Various businesses and organizations use it to solve existing problems and discover new opportunities. A fundamental element of design thinking is simply thinking and ideating on a solution to address a problem or to meet a customer needs.

Design thinking should be at the core of strategy development and organizational change in order to create a culture that's focused on this way of solving problems. This way of thinking can be applied to products, services, and processes; anything that needs to be improved.

#### WHERE DOES DESIGN THINKING ADD VALUE?

Businesses have a never-ending list of goals, from constantly releasing new products that increase sales by resonating with customers to providing better customer support. When a business decides on a new product, a massive, expensive machine shifts into high gear, especially at large corporations. Applying design thinking can help to direct the attention to the specific solutions people need. It has become clear that using design in numerous ways and on a strategic level creates competitive advantage, boosts innovation capacity, adds value across the whole value chain and has a positive impact. It adds value to both users and businesses. For this one needs to have a growth mindset, it creates a psychological safety for risk taking and for collaborations.

FIGURE 2: FIXED AND GROWTH MIND SET



**COMPANIES USING DESIGN THINKING**

There are many examples that use design thinking in their day-to-day operations, like Apple and Google. Design thinking can and does work for all types of organizations, big and small. Yes, it can be challenging to implement at a more established company where process and systems run amuck, but the benefits outweigh the process of cutting through all the red tape.

**IBM**

IBM has taken numerous steps to cultivate design thinking into its culture by increasing the number of designers on its workforce from one for every 33 coders, to one for every eight. It got to know its users – in this case, all employees in the organisation. It built empathy maps and personas, and observed the way that its people worked. Once the business understood the current scenario, it then identified pain points, and from that started to imagine things that could help solve them."

**INFOSYS**

Infosys uses design thinking as it offers the most effective model to cultivate the creative power and potential of the enterprise. The company applies design thinking process and practices to increase opportunities for innovation and optimize their employees' problem-solving skillsets. Infosys has used design thinking workshops to change the mindset of its 170,000+ employees.

**FIDELITY LABS**

Fidelity Labs, has 8 global locations, 150 people, and over 200 patents. The three foundations of Fidelity Labs' design thinking methodology are "scan," "try," and "scale." They first "scan" across industries to find opportunities for innovation, then "try" to quickly prototype and test products with customers, and finally "scale" by identifying opportunities and delivering them to their 22 million customers and partners.

**PEPSICO**

Pepsico is also using Design Thinking to address the user experience. It tried Design Thinking a little differently. They decided to take the top-down approach. The CEO Indra Nooyi had the mandate to innovate and she believed doing it the design way. She hired Mauro Porcini, who till then led design at 3M, as the first-ever chief design officer at Pepsico. PepsiCo launched Lifewtr, a premium-priced bottled water featuring labels that are designed by artists and change several times per year.

**TOSHIBA**

Toshiba had been struggling with their disused factories that were once actively churning out floppy disks. When floppy disks lost their charm, the factories remained shut for a decade. After applying design thinking, Toshiba decided to convert these factories into vegetable farms, growing lettuce, spinach, and other green leafy vegetables. Toshiba is growing over 3 million units of vegetables annually since 2015. In the future, they are also planning to introduce robots that pick vegetables.

**BRAUN**

The team at design company Industrial Facility were given the challenge of creating a better experience with the Oral B electric toothbrush. Instead of looking at the client's idea of tracking a user's brushing performance, the company looked at the problems the customers had. These included forgetting to purchase replacement brush heads and the toothbrush running out of power. As a result, Industrial Facility created toothbrushes with charging capabilities. The toothbrushes were also fitted with a button that users could press that would send a reminder to their smartphone to purchase a replacement.

**CAPITAL ONE**

Capital One has adopted design thinking as a mantra to reinvent itself as a software company and innovation incubator. After acquiring design firms Adaptive Path and Monsoon, Capital One has recently rolled out fresh digital features, from an emoji-enabled SMS chatbot to GPS-tracked transaction histories.

**DESIGN THINKING IN VARIOUS DOMAINS**

Nowadays, Design Thinking is used in every domain. Organizations are implementing Design Thinking to gain more productivity and to become more customer oriented.

**1. DESIGN THINKING IN MARKETING**

Design Thinking looks at people, products, place, process and performance. Marketing meets at design thinking in branding and service design. Design Thinking influence branding and helps in expanding innovation. Design and market should work together to solve customer problems. It also provides a structured approach for service and product development.

**2. DESIGN THINKING IN INNOVATION**

Design Thinking puts a tool set for creativity in hands of people. It involves collaboration across multiple disciplines. Its helps to create effective strategy development, organizational change and business transformation. Through design thinking right problems can be solved and appropriate solutions can be tested. Design Thinking in Innovation goes through three phases LEARN, CREATE, MAKE.

LEARN to identify the challenges and the right problem to solve it.

CREATE implies doing research to form ideas and prototypes are made to bring possible solutions.

MAKE is implementing the process. Things can always be made better so iterate, iterate and iterate.

**3. DESIGN THINKING IN HUMAN RESOURCE**

Human needs are the centre of design thinking. Design thinking learns actual needs of people through qualitative and effective research.

**"Empathy maps reveal perceptions from the user's point of view, and by forcing research that looks at both emotions and reason, gets a truly people-centric view of a situation."**

Design Thinking evolves a robust selection process that yields best fit of the candidate to the job profile.

**4. DESIGN THINKING IN INTERNET OF THINGS**

Design Thinking develops end user to focus on solutions to complex problems. It empathizes phase end users. It gets to the bottom of real problem with current technologies and products. Design Thinking helps in testing multiple prototypes and looking for more input from end users. By applying Design thinking to internet of Things, we can implement intentional innovation to solve the challenges in Internet of Things such as architecture, verticals and other related domains.

**5. DESIGN THINKING IN FUELLING BRAND STRATEGY**

Design thinking act as a linking between design and business and look at design from a wider perspective of business approach. In the book, Design Management: Using Design to Build Brand Value and Corporate Innovation, Brigitte de Mozota categorized design contribution inside organizations into three domains:

Operational design involves design tasks such as creating graphic design materials, designing products, and digital user interfaces.

Functional (tactical) design involves the design process such as arranging the cooperation between departments and different stages of the design process.

Strategic design involves looking to the design from a strategic perspective that links between the company strategy and consumer needs such as building the company brand and reflecting it to the above two types of design inside the organization.

**CONCLUSION**

In conclusion, Design thinking is at the core of effective development and organizational change. It defines how organizations learn from one another, and pushes teams to explore new horizons. The design way of thinking can be applied to anything from systems, to procedures and user experiences. Ultimately, it is there to improve quality of life and create a better world for all. This process requires more than a single process adoption but transformation in the mind-set of the organisation. It means changing the way people in the organisation think, and the way organisation is structured so that the internal processes are adaptive. This will allow the flexibility to create agility, adaptability, and innovation as one of the means to create people centred, entrepreneurial and meaningful organizations. It can create an ecosystem of co-creation that allows various stakeholders, such as employee, management, end users, to be a part of decision making, and making the organizations more meaningful.

In pursuit of innovation, not just the big players but start-ups and small businesses can also employ design thinking considering it as imperative to their success. Design thinking is a tool for simplifying and humanizing. Adopting it is not easy. However, doing so is empathetic, as it is a more thoughtful and human approach to business.

### LIMITATIONS

The findings of the study indicate that when organisations implements design thinking, the main use of this method is during early or innovation stage and less in phase of product development which where design is already included. Also, our study finds that design thinking cannot replace the traditional system, but rather adds a new field of work. Moreover, in order to implement design thinking the organisations needs to have right mindsets, collaborations and conducive environment which is tough to get in an organisations as people of various mindsets are working together under one roof.

### FUTURE SCOPE

Design Thinking has become a game changing competency for majority of enterprises. Design Thinkers need to take a step back and re-think how to take this concept forward. The Design Thinking community will then follow and respond. Design Thinking needs a new lifting up into both tactical and strategic approaches. As we face the task of solving complex and strategic problems, it is the time for Design Thinking to step-up and become a key component on how to do this in order to understand customer needs, and to solve organizational challenges that corporations and society are grappling with. The ability to extract from Design Thinking methodologies can significantly help in the future. What is increasingly demanded today is to solve more complex problems in creative ways, and Design Thinking needs to work in harmony with many other thinking skills to make its contribution. It can connect to a wider universe of problems and complexity of design itself, over the centuries it broke out of past confines. Design thinking makes us all design-conscious if we allow it to. It is the human-centred design that can draw out the best of our thinking if we do allow it to. As Design Thinking has taken hold, there has been an increasing demand to raise up its capacity to help solving problems in our business complexities, in our countries and in our lives.

Implementing design thinking is definitely not an easy task, but with it, you can create a workplace where employees look forward to work and innovate. This cultivates empathy for customers and paves the way for rapid prototyping and user testing to launch innovative products quickly to the market. Through design thinking approach, enterprises have seen dramatic improvements in their top and bottom lines, companies have been able to completely transform their lines of business and fight the disruption.

### REFERENCES

#### BOOKS

1. David Kelley and Tom Kelley, (2013), "Creative Confidence." Crown Business, New York

#### WEBSITES

2. <http://tip.touch.com.lb/design-thinking-important/> viewed on December 26,2018
3. <https://economictimes.indiatimes.com/news/company/corporate-trends/how-established-companies-like-pepsi-are-using-design-thinking-to-come-closer-to-clients/articleshow/48718034.cms?from=mdr>. Viewed on January 05,2019
4. <https://www.digitalsurgeons.com/thoughts/design-thinking/5-big-organizations-that-win-with-design-thinking/> viewed on January 05,2019.
5. <https://www.forbes.com/sites/lawtonursrey/2014/06/04/14-design-thinking-esque-tips-some-approaches-to-problem-solving-work-better-than-others/#12d32e591627>. Viewed on December 12,2018
6. <https://www.peoplematters.in/article/expert-views/businesses-are-embracing-design-thinking-be-more-innovative-12674>. Viewed on February 05,2019
7. <https://www.telegraph.co.uk/connect/better-business/innovation/design-thinking-business/>. viewed on December 12,2018

## **REQUEST FOR FEEDBACK**

**Dear Readers**

At the very outset, International Journal of Research in Commerce, Economics & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as, on the journal as a whole, on our e-mail [infoijrcm@gmail.com](mailto:infoijrcm@gmail.com) for further improvements in the interest of research.

If you have any queries, please feel free to contact us on our e-mail [infoijrcm@gmail.com](mailto:infoijrcm@gmail.com).

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward to an appropriate consideration.

With sincere regards

Thanking you profoundly

**Academically yours**

Sd/-

**Co-ordinator**

## **DISCLAIMER**

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publishers/Editors. Publication does not constitute endorsement by the journal. Neither the Journal nor its publishers/Editors/Editorial Board nor anyone else involved in creating, producing or delivering the journal or the materials contained therein, assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information provided in the journal, nor shall they be liable for any direct, indirect, incidental, special, consequential or punitive damages arising out of the use of information/material contained in the journal. The journal, neither its publishers/Editors/ Editorial Board, nor any other party involved in the preparation of material contained in the journal represents or warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such material. Readers are encouraged to confirm the information contained herein with other sources. The responsibility of the contents and the opinions expressed in this journal are exclusively of the author (s) concerned.

## ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

### *Our Other Journals*

