

FUSION INNOVATION IN FINTECH CORPORATIONS AND PERFORMANCE INDICATORS

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Abstract—*The overall purpose of this study is to analyse the practical application of fusioning technique for lateral innovation and identify performance indicators. Through this study, I intend to develop a meta-framework for democratization or large-scale adoption of this technique among employees and teams in large organizations as well as identify performance indicators for organizations adopting such frameworks. Today innovation is restricted to a select few groups and individuals in a company. However, there are larger pockets of innovation throughout the intellectual capital of the employees everywhere in the organization which is largely untapped. An extensive literature review was conducted in application of innovation techniques in large technology companies. Though there have been significant theories developed around employee motivation, creativity, diversity and lateral thinking, little original work has been done in the area of fusion based innovation and large-scale adoption. Hence, the objective of this paper is to identify elements of a meta-framework that can accelerate efficacy of fusion-based lateral innovation among employees and teams of large organizations.*

Keywords—*Design thinking, Diffusion of innovation, Fusion, Lateral innovation, Theory of motivation.*

Introduction:

Large FinTech organizations are grappling with newer business problems as technology landscape across the enterprise keeps evolving. A lot of money is being increasingly pumped into research and development in those organizations to identify and address these business problems. If these are not addressed on time and corrective actions taken upfront, a lot of monetary damage ensues. One of the challenges in investing in a separate research and development wing is that most of the times the innovators are working in a lab-like environment, totally cut off from the ground realities and challenges. This results in solutions that are either not feasible or ones that are far from reality.

One of the areas that organizations are increasingly looking towards is tapping into the employee potential. Along the likes of crowdsourcing and murmuration, organizations are promoting employee-driven innovations and initiatives to solve complex business problems. This is not just done by hand-picking a few innovative employees in the organization. In fact, this approach can only lead to isolation of innovation and may defeat the original purpose of fostering a culture of creativity.

The approach that is fast gaining popularity in large organizations is democratization of innovation. A technique based on design thinking and zero distance by which employees will own the innovation culture by immersing themselves into the client's business problems, defining it, understanding the client's pain points by empathizing with it, brainstorming ideas and evaluating solutions that can be a right fit. This not only fosters a culture of creativity and also accelerates effective solutions to complex business problems in real-time.

Dr C.J Meadows has proposed an innovation framework 'Fusion' technique that promotes radical lateral innovation in corporations and individuals by tapping into the interspaces between industries, technologies, countries, classes, and more. Her research primarily examines world-class innovators and their behaviours in solving complex world problems cutting across music, medicine, business management, academia, and social welfare.

This research aims to build and develop a framework that outlines important organizational elements for large scale adoption of fusion based lateral innovation in large FinTech companies. This framework to define the critical success criteria in democratization of fusion theory proposes to consider two of the most critically acclaimed theories based on extensive literature review: Fusion based lateral innovation (Dr C.J Meadows, 2017) to define the organizational elements and McKenzie's DMI index to establish if FinTech companies with fusion perform better

Definition of Terms:

Fusion based lateral innovation: Proposed and developed by Dr C.J. Meadows, fusion technique examines the fertile ground for radical innovation in corporations and individuals: The interspaces between industries, technologies, countries, classes, and more

Democratization of Fusion based lateral innovation: Enabling large-scale adoption of fusion based innovative techniques among employees and teams in large corporations to address complex business problems of the clients.

Meta-framework for democratization: Creating an adaptive framework on top of Dr C.J. Meadows' fusion theory to enable large scale adoption of lateral innovation in large corporations.

Design thinking: a design methodology that provides a solution-based approach to solving problems through five stages: empathize, define, ideate, prototype and test

Zero distance: An approach in which employees understand business problems of clients by placing themselves at zero-distance to the client or putting themselves in the client's shoes.

Diffusion of innovation theory: This theory explains adopters' willingness and ability to adopt an innovation depends on factors such as their awareness, interest, evaluation, trial, and adoption (Rogers, 1983)

McKenzie's DMI index: This is a design centric index composed of multiple factors to arrive at a composite score called DMI index that is used to establish if firms with design thinking interventions outscore peers in terms of revenues and total returns to shareholders

Literature Review:

Scope of literature review:

Lateral innovation techniques and frameworks like fusion engineering have had significant and meaningful impact on employers, employees, individuals, and society as a whole. There is very limited amount of work done in the application, adoption, and democratization of fusion technique of lateral innovation. A wide literature search was conducted (using EBSCO) to assess a list of significantly relevant theories and factors in this area, given that it was challenging to narrow down on the most relevant theory from the outset.

Literature Review and supporting arguments:

Maslow's hierarchy of needs theory of motivation was evaluated because it explains the foundation of human behavior when each of their basic needs, psychological needs and self-fulfillment needs are met in that order. While innovation based initiatives are intended to provide the highest in the hierarchy i.e. self-actualization of self-fulfillment intended to migrate the employee to more productive, innovative and meaningful tasks, conflict arises when it is perceived to be a threat to even the basic needs like recognition, stealing credits and psychological needs like sense of belonging and involvement (Maslow, 1943).

Prior research studies have been able to acknowledge many relevant variables pertaining to motivation, creativity, and innovation in relation to Maslow's hierarchy of needs theory of motivation. This can further be corroborated by examining extrinsic factors viz., hygiene or organizational factors and intrinsic factors viz., motivation or employee traits. Thus, presence of certain factors led to satisfaction whereas absence of a different set of factors causes dissatisfaction (Herzberg, 1959).

Employee characteristics like user attitude, user expectation, user education, user training and user resistance in such initiatives is worth examining closely to understand the drive and participation (Fuerst & Cheney, 1982).

Rogers' diffusion of innovation theory identifies factors affecting the decision to adopt an innovation about whether it will get shared and adopted by other individuals and organizations. According to this theory, it is argued that adopters' willingness and ability to adopt an innovation depends on factors such as their awareness, interest, evaluation, trial, and

adoption (Rogers, 1983). The adapters categorized as innovators, early adopters, early majority, late majority, and laggards.

Sometimes, the seeds of innovation are sown by the act of active seeing. Fusioners (innovators who use fusion techniques) who are defined as attuned, observant, and open-minded scanners see details and patterns in complex problems around them. This action is enhanced by actively developed individual mental collection. This keeps evolving and can develop only when we add newer mental models to this collection (Dr C.J. Meadows, 2017)

Measurement of performance of organizations that implement lateral innovation versus those that do not or do very little about it is equally crucial to establish the premium of innovation. Few references from similar research conducted by McKinsey as well as Gallup was studied to analyze employee engagement, revenue growth as well as return to shareholders that could be benchmarks to compare organizations.

Establishing the research gap:

Although there have been theories in the area of motivation, creativity, innovation and fusion technique (The primary framework based on which the meta-framework will be proposed), there has been very little original research conducted in large scale adoption of fusion techniques in large corporations especially technology companies in the services industry. While Maslow's theory of motivation clearly establishes the hierarchy of needs, it does not delve into the details of motivational challenges for innovation frameworks like fusion techniques.

More importantly, what could be some of the challenges that employees might face in approaching the innovation process? Dr C.J. Meadows' fusion theory identifies the key characteristics of world-class innovators who have been largely successful. However, expecting to replicate the same in a large organization among large masses of employees might not produce similar results.

Hence, what is clearly lacking is a *framework that can define the problem statement, approach to fusion based innovation, selecting mix of employees for innovation, defining KPIs for improvement and success and finally replicating the same at scale.*

The closest framework to addressing this business problem around innovation in the era of automation and A.I is Dr C.J. Meadows' fusion theory and hence a meta-framework on top of this framework will be built that can sufficiently address the research objective and questions.

Developing research objective:

Research Questions

Innovation is a highly qualitative entity and one of the challenges is to define a framework that can quantify the process as well as measure the success of its direct injection into businesses. Dr C.J. Meadows' fusion theory is the primary framework based on which this meta-framework will be developed to address large scale adoption of fusion based lateral innovation in big corporations. The objective of this research is to establish the factors influencing the adoption of fusion innovation at scale in companies via the following questions:

1. Does the fusion based innovation framework hold relevance in large scale corporations?
2. Is it possible to replicate the same level of success of fusion based world-class innovators across employees of large corporations by democratization?
3. What are the critical success factors that can determine large scale adoption of innovation frameworks like fusion?
4. How to arrive at factors to measure efficacy of fusion based lateral innovation framework?

Research objectives:

The primary objective of this research study is to create a meta-framework based on fusion technique to drive large scale innovation in big corporations. Hence, based on the above questions, the objectives of this research can be deduced as follows.

1. To define a broad meta-framework that will define components, training plan, methodology, critical success factors, implementation and testing of fusion based innovation approach in large corporations.
2. To understand the relevance of fusion based innovation in large corporations or MNCs.
3. To study the factors that aid in the replication of fusion techniques of world class innovators in a factory set up

4. To determine critical success factors of large-scale adoption of fusion in companies.
5. To create a balanced score card to measure efficacy and success of fusion techniques in problem solving

Development of methodology to address the research objective/aim/question/hypothesis including justification as well as measuring the performance of organizations.

Research Methodology, Design and framework

a. **Research methodology** Based on Dr. C.J. Meadows’ fusion theory especially her study on connecting the dots, Maslow’s hierarchy of needs and Roger’s diffusion of innovation theory, following are the independent variables that impact the dependent variable that is Efficacy of innovation in large organizations.

Sense of ownership: How much of emotional sense of ownership and belonging do employees (Barsanti, 1990) have while contributing to innovative frameworks? Employees need to have a sense of valued with their ideas and to some extent ownership

Awareness and interest: Awareness levels and enthusiasm of employees to contribute towards innovation. Employees need to be aware of the context and the business problem to provide relevant innovation driven recommendations. Also, their interest levels should not drop and need to be sustained.

User training: Cross-training and induction procedures to standardize and encourage contribution to innovation. Employees need to be trained on several innovation methodologies and frameworks – else, this might lead to sporadic or bursts of innovation which may not be captured in the right format.

Outward openness: Encouragement and drive for employees to scan the market outside the company for trends and patterns. Employees need to be encouraged to read more on what’s happening outside the company to ensure they are aware of constraints and best practices in the industry while innovatively contributing to the organization development.

Inward Openness: Support for curiosity, outside frameworks and freedom within the teams to map and manage energies. Supervisors need to foster a culture of creativity and also be open to adopting frameworks from outside the organization instead of being resistant to change.

Creative diversity of workforce: Multi-lingual, multi-national representation brings a lot of unique flavors and mental diversity to the organization thereby promoting creativity.

Team composition: Representation across nationalities, religion, gender, race, beliefs etc., can promote collaborative contributions to innovation. Individual differences may impact overall adoption of newer technology and frameworks (Zmud 1979).

Diversity of work: Mix of interesting work to drive away boredom and mundane tasks. This is especially important in services and manufacturing set up. This can be enabled by temporary job-rotation or encouraging employees to do diverse set of tasks.

Based on the key factors identified above and literature review, we can categorize the influential factors for democratizing fusion based lateral innovation as follows:

TABLE 1: INFLUENTIAL CATEGORIES OF LATERAL INNOVATION ADOPTION IN ORGANIZATIONS

<i>Influential categories</i>	<i>Sub-categories</i>
1. Organizational culture and practices	Work force diversity
	Work diversity
	Fusion structure and processes
	Funding & Rewards
	Org. culture

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2. Openness	Outward openness
	Inward openness
3. Collective Intelligence	Collecting and Curating
	Sharing
	Knowledgebase
4. Organizational Seeing	Curiosity and slack time (for seeing differently) Time to see
	Non-linear process and design thinking Seeing by doing
	Job rotation and shadowing Multi-perspective seeing
5. Fusing	Creating odd combinations (of people)
	Inter-disciplinary work (projects and people)
	Talent pool of ‘fusioney’ people

TABLE 2: CAPTURING IMPACT OF INNOVATION ACROSS PEOPLE, PROCESSES, AND PRODUCTS: A VIEWPOINT

<i>Innovative behavior of people</i>	<i>Process related innovation</i>	<i>Product related innovation</i>	<i>Customer impact</i>	<i>Innovation premium</i>
Generate creative ideas and networking (cross-functional talent)	Process improvement score – LEAN, 6sigma	Product features improved	CSAT score, user experience	Market share gain
Consistency in innovative behavior	Simplification of processes creatively	Product recalls/defects/quality score	Repeat business percentage	Sales with new products/investments – RNOA, revenues
Relevancy of innovation	Introduction of novel processes, practices	New products introduced	Customer churn	Time to market

Originality of ideas	Replicability of the processes across (continuous iteration)	Products moved to Cash cows, stars over dogs and laggards	Increase in reference able customer	EPS/stock beta/returns to shareholders
Culture of teams for welcoming innovation	Process efficacy	Product margin/profitability	#customer increase with higher margin	Employee/customer churn
Culture of organization for recognizing innovation (analytical leadership)	Benefits - Throughput, productivity and CSAT improvement	Sustenance of high performing product mix in market	New customer acquisition/Marketing spend	Executive compensation
What factors drive innovative behavior?	Why process innovations fail?	Tying product innovation to EPS	Customer complaints #	Bonus payout/Customer benefit

TABLE 3: MEASURING INNOVATION ACROSS SPECTRUM OF STAKEHOLDERS

<i>Team members</i>	<i>Supervisors</i>	<i>Executive</i>	<i>Human resources</i>	<i>Customers</i>
How conducive is environment?	Is innovation proactive or reactive?	How do you reward?	Employee churn/retention?	CSAT survey indicators
Does your supervisor support?	Does senior management support?	How do you measure?	Reward and recognition? How are recommendations done?	How easy is innovation to seamlessly integrate with your culture and beliefs
Do you share innovation with other teams/within?	How do you deal with inhibition behavior?	What is customer feedback?	How important is innovation to promotions?	Business impact score
How is rewarding mechanism?	How do you contribute?	How is this tied to company performance?	Compensation and benefit calculation	Company performance indicators
Is there a knowledge base? Do you contribute?	How do you ensure relevancy to end user?	How do you ensure less latency between innovation and impact?	Employee feedback collection and incorporation	Incorporating your feedback

Performance index measurement: Composite metric analysis

McKinsey recently concluded a study on organizations deploying design index versus those that do not. It found out that companies with top-quartile McKinsey Design Index scores outperformed industry benchmark growth by as much as two to one. It measured revenues and return to shareholders as the KPIs for comparing organizations. The composite Design Index Score was calculated by analyzing the following factors:

1. Analytical leadership
2. Cross-functional talent
3. Continuous iteration
4. User experience

A similar approach can be taken by measuring parameters across the spectrum that have been identified as influencing factors that impact innovation and by creating our own innovation index out of Table 1. Likewise, the financial performance indicators of these fintech companies can be compared by looking at a few key corporate financial ratios like the following:

1. Investors considering bank stocks look at such traditional equity evaluation measures as price-to-book (P/B) ratio or price-to-earnings (P/E) ratio
2. Net interest margin is an especially important indicator in evaluating banks because it reveals a bank's net profit on interest-earning assets, such as loans or investment securities
3. Net Interest Margin = $(\text{Interest Income} - \text{Interest Expense}) / \text{Total Assets}$
4. The return-on-assets (ROA) ratio is frequently applied to banks because the cash flow analysis is more difficult to accurately construct. The ratio is considered an important profitability ratio, indicating the per-dollar profit a company earns on its assets. Since bank assets largely consist of money the bank loans, the per-dollar return is an important metric of bank management
5. Annual revenue growth %
6. Efficiency Ratio = $\text{Non-Interest Expense} / \text{Revenue}$
7. Operating Leverage = $\text{Growth Rate of Revenue} - \text{Growth Rate of Non-Interest Expense Liquidity}$

Another benefit of engaging innovative employees the right way, recognizing them and rewarding them is lesser employee turnover.

Gallup conducted a study on employee engagement and found out that

1. Neither employees nor managers are engaged.
 - a. Only 30% of employees and Only 35% of managers are engaged
2. Managers are responsible for at least 70% of the variance in employee engagement (low engagement)
3. 50% of Americans quit their manager at some point in time in their career

The study also emphasized that managers need to focus on strengths of employees. This is especially true for employees who engage in lateral innovation i.e. applying innovation from outside their zones to create diffusion of new ideas.

Thus, this study emphasizes the following to be considered as it can have an additive effect on employee engagement especially the innovative ones:

1. Focus on strengths
2. Engaged workforce
3. Talented employees
4. Great manager

Constructing the theory model:

The model framework will be a meta-framework based on Dr. C.J. Meadows' fusion theory of lateral innovation. Once, the key independent variables have been confirmed for relevancy after performing regression analysis based on survey response, a linear equation model is constructed to understand magnitude of impact on dependent variable. Since, this is a meta-framework, any updates to the original framework of fusion needs to be suitable adjusted for on an on-going basis to maintain relevancy.

Identification of appropriate ethical consideration to conduct the proposed research

Stakeholder analysis: Since, the stakeholders involved are from multiple ethnical background, language, gender, educational qualification etc., proper care needs to be taken care not to target specific segments of population or attempt to identify profiles that might be interpreted as non-innovative – Which is not related to the research

Informed consent: All stakeholders need to be informed that certain parameters like ethnicity, educational qualification etc., might be required and stored for research purposes. This will not be tied to identify any individual but rather a representation of population sample.

Objectivity: Proper care needs to be taken to avoid falsified research when data does not provide the required result. If need be, additional interview and more data can be captured. Still if the research is inconclusive then the framework needs to be revisited to check for any additional parameters that may have been missed.

Internal researcher or external researcher: Survey will be administered by independent researcher from SP Jain school of global management on industries. This survey will not be administered inside S.P. Jain school of global management.

Plagiarism: Since, this is a meta-framework on Dr. C.J. Meadows who is from S.P Jain school of global management, she will be informed and referenced for the research to ensure any traces of intentional or unintentional plagiarism is avoided.

Conclusion:

Based on the study undertaken, we can conclude that the influential factors in democratizing lateral innovation in large organizations is a mix of organizational culture, openness, collective intelligence of workforce, organizational seeing and the act of fusing people, work and talent pool of such fusioney people. Based on these categories and sub-categories identified as a result of literature review and research analysis, there is scope for future study and correlation analysis. This can be done by conducting a research study in organizations through surveys, the result of which can be a source of primary data. Further regression analysis can be conducted to identify key independent variables that contribute to overall democratization of lateral innovation in organizations. This study can be coupled with analyzing financial ratios across organizations that practice lateral innovation adoption versus those that are either weak at or having no adoption of lateral innovation. Interesting comparison can be done to identify benefits of lateral innovation adoption across organizations. The findings of this study can further be extended to design initiatives targeting specific key influential factors to maximize adoption of lateral innovation. The impact of such innovation practices can be measured by designing a lateral innovation index score based on the findings of the study. Financial performance metrics can be devised through simple yet powerful corporate financial ratios to compare industry benchmark, leaders as well as experimenters.

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