An Analytical study of Adoption of Neuroleadership Practices and Technology by the Indian Organizations

Dr. Anshul Yadav

Indian Institute of Technology Delhi (IIT Delhi)

Dr. Prateek Jain

Indian Institute of Management Jammu (IIM Jammu)

Abstract

The technology revolution and the dynamics of economic trends continuously excite the organisational environment, which is continually preoccupied with creating cutting-edge solutions to support the improvement of overall performance. Technology development sparked research into neuroscience and neuroleadership by examining the brain, emotions, and mental processes that influence decision-making and have a direct bearing on both individual and collective performance. This study tries to pinpoint the conceptual model for projecting how Indian organisations would use neuro-scientific and leadership methods. By way of a thorough analysis, a conceptual model that combines the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and Technology-Organization-Environment (TOE) framework has been proposed. This model is intended to serve as a primary explanation for the specifics of the behaviour of adopting neuroleadership as well as the variables that affect the adoption and use of neuroscience practices and technology. The main advantages, risks, and internal and external factors that support or hinder the process of adopting Neuroleadership practices could be identified by using this research approach, as well as the level of perception and beliefs that Indian organisations currently hold regarding the concept and practices of neuroleadership.

Keywords: - Leadership, NeuroScience, Entrepreneurs, Organizational effectiveness, Performance enhancement.

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Introduction

The activities of the entire organisational eco-system is impacted by the prevailing economic situation, and improving global performance has emerged as one of the main organisational issues. Modern businesses now prioritise the digital revolution, creative organisational management, and tactics that can boost worker and worldwide performance. The development of neural and brain imaging technology has sparked increased interest in neuroscience research. Applying the fundamental concepts of neuroscience to the operations of an organisation can significantly boost the effectiveness of the company. Neuroleadership can bring about long-lasting change at the organisational level by assisting others in better understanding what is happening in their brains, emotions, and giving them ideas and practical approaches that can help them deal with people at all levels of an organisation more effectively. Given their favourable impact on both individual and overall organisational performance, advancements in the field of neuroleadership must be utilised in this dynamic and competitive organisational environment (Teacu Parincu et al., 2020). New strategies must be established in relation to the needs of the internal and external clients because the integration of neuroscience principles, practices, and technology in the entrepreneurial approach is a long-term process. Like any revolutionary technology, Neuroleadership raises a lot of concerns about how Indian enterprises view this approach. Through the fusion of brain science approaches and social science research, management, leadership, and marketing research approaches are continuing to develop along with technological advancement, providing new opportunities for researchers and practitioners

to gain a fresh perspective on how decisions are made and comprehend the behaviour of internal and external stakeholders. Along with business, neuroleadership has implications in many fields like educational leadership (Gocen, 2021). In order to strengthen their position in the market, gain a competitive edge in the market in which they operate, build enduring relationships with their internal and external customers, and produce positive experiences in relation to them, modern organisations take into consideration the innovative approach of management, leadership, and marketing processes. In this way, businesses seek to experiment with novel levers that raise employee performance on an individual basis while also implicitly raising business performance as a whole. The adoption of neuroscience approaches, which are cutting-edge practices that can produce sustainable growth in the performance of businesses, must therefore be determined by both internal and external considerations.

The context and research approach

There is a significant research gap in the area of neuroleadership, as the literature review has only found a small number of studies in this area, and none could be found at the level of the Indian entrepreneurial eco-system. Research on neuroscience practices and technology has primarily concentrated on ad-hoc studies on how consumers and businesses in the Indian business environment perceive neuromarketing strategies (Constantinescu, et al., 2019). There is a chance to conduct research that is relevant to the organisational and entrepreneurial environment in India given the lack of studies that examine how organisations in India perceive novel cutting-edge neuroscience-based concepts like neuroleadership and the internal and external factors that affect the adoption and use of these practices.

It is crucial to comprehend the theoretical framework that directs the study of the process of adopting neuroleadership practices and technologies, the factors that influence their acceptance or rejection by organisations or by users, in order to provide an understanding of the relationships between all relevant parameters. Adopting an innovative concept or technology within an organisation is a complex process (Glasman & Albarracin, 2006; Armitage & Conner, 2001). After thorough analysis, the Technology Acceptance Model (TAM), the Technology-Organization-Environment framework (TOE), and the Theory of Planned Behaviour (TPB) are proposed as a model for predicting the adoption of neuroleadership practices, neuroscience, and biometric technologies by organisations from India, as well as their behavioural intentions. (Ajzen, 1991; Davis, 1989, Tornatzky & Fleischer, 1990). By using this research methodology, it will be possible to pinpoint the main internal and external factors that support or hinder the adoption of neuroleadership practices in Indian organisations, as well as the current level of perception and beliefs held by these organisations regarding the concept and practices of neuroleadership and the technology used in neuroscience studies.

Literature Review

Understanding how the human brain works and how potential reactions are generated is crucial since everything a person does and feels is stored in their brain (Grah & Dimovski, 2014). Given that brain functions are among the factors that determine leadership behaviours and attributes, it is extremely important to understand this (Waldman et al., 2011). The human brain uses 100 billion neurons and trillions of connections, according to Gordon (2000), in order to respond to potentially dangerous changes in the environment, meet basic needs, maintain social relationships, and satisfy one's own needs and emotions.Although the brain is the central organ that controls the body, the functions of each portion of the brain vary. Negative effects on the body and mind might result from damage to one of the many components of the brain. For instance, patients may have issues like slowness, a decrease in emotion, and apathy when they have frontal lobe syndrome, which is typically found as a result of a traumatic or neoplastic frontal lobe lesion (Kokacya & Ortanca, 2020).

Within relevant models and frameworks, the contribution of neuroscience to the understanding of human behaviour can be methodically explained. The SCARF (Status, Certainty, Autonomy, Relatedness, Fairness) paradigm is one of the most well-known of these. This model explains how the human brain

responds to reward or threat circumstances in terms of motivation (Rock, 2008). The brain directs the structure and intensity of human behaviour in accordance with perceptions of either "reward" or "danger" in order to sustain the person's wellness. The five dimensions of the SCARF model are used to explain human social experience. (Rock, 2008, Rock & Cox, 2012). Status is a person's perception of their importance and deservingness in the eyes of others like peers, colleagues, supervisors, etc. The need for clarity and the capacity to make precise predictions are both examples of certainty. Having influence over one's own actions and a sense of control over the circumstances in one's life is what is meant by autonomy (getting promoted, finding a partner, etc.). Relatedness conveys a person's sense of attachment to another individual and the bond they have formed (for example, whether someone is perceived as a friend or enemy). Fairness highlights the notion of a just and impartial interaction between individuals (such as applauding or accepting one's efforts, providing equal compensation for similar work, etc.).

When a social input affects a person's safety, will, or emotions of equality, the brain and body release hormones and activate neurons. According to the SCARF model, linguistic stimuli that could be detrimental to a teacher's "status" at the workplace or sentiments that are not validated by a sense of "relatedness" can lead to teachers developing defensive structures. McHale (2022) had also propounded how SCARF model impacts the organizational communication. The brain tries to approach if there is a reward or walk away if there is a hazard, as the SCARF model highlights (Rock, 2008). However, reward/threat perceptions might not be enough to fully account for how the human brain behaves in both unpleasant and happy circumstances. People have the ability to consciously override their instincts in order to carry out actions they believe to be more productive and advantageous (Freedman, 2019). As a result, the brain's multifaceted structure and functions allow for unpredictable behaviour.

The purpose of the study

There are a number of problems that need to be addressed in a new research study due to the limits of the studies that define how businesses in India perceive cutting-edge neuroscience ideas like neuroleadership. The main goal of this paper is to create a conceptual framework that makes it easier for Indian organisations to adopt neuroleadership practices and technology. It also aims to collect credible evidence to support the claim that by implementing neuroleadership practices, Indian organisations have access to a new lever that can promote sustainable development and boost performance. In order to determine whether organisations are willing to adopt cutting-edge neuroleadership practices, identify factors that facilitate or hinder adoption, and highlight the key advantages and risks of entrepreneurship in India, which have a direct bearing on the development of organisational performance, our research team set out to do the following.

Objectives of the study

- To assess the advantages and hazards of implementing neuroleadership practices and technology;
- To define the key internal and external factors that influence or restrict the implementation and usage of neuroleadership practices and technology;
- To determine the level of acquaintance with and expertise of neuroscience practices, such as neuromarketing, neuroleadership, and technology;
- To fill in the knowledge gaps regarding the adoption and use of neuroscience methods and technologies within Indian enterprises as well as the idea of neuroleadership.

Research design

The development of technology aided in the identification of critical decision-making process components and sparked an interest in neuroscience study. The organisational environment is still hesitant to integrate and use the findings of prior research in their activities, which restricts the development of disciplines like neuroleadership even if interest in neuroscience and its insights has grown. The intention to carry out a particular behaviour is a predictor of that conduct (Myers, 2010), hence we need to look into the behavioural intents of enterprises in India to implement

neuroleadership methods and technologies. In this context, a conceptual model is constructed and two studies are analysed to create a sustainable lever that drives global performance for businesses by incorporating neuroleadership techniques and neuroscience technologies into the operations of Indian firms.

Using the theory of planned behaviour (TPB), the technology acceptance model (TAM), and the technology-organization-environment (TOE) framework, quantitative research examines the behavioural intentions about the adoption of neuroleadership and technologies. This study aims to investigate the intentions of Indian businesses to adopt neuroleadership practices and techniques. As with any innovative idea, there are many internal and external barriers to adoption, including lack of knowledge of the advantages, technological advancement, costs, the reliability of results, the presence of multidisciplinary teams, the discipline's reputation and image, as well as ethical and legal concerns (Pop, et al., 2014; Spence, 2016; Crespo Pereira, et al., 2020).

Methodology

In terms of the adoption and application of neuroleadership, the study was created to assess the prediction abilities of the theory of planned behaviour, the technological acceptance model, and the technology organization-environment framework. The study's part on neuroleadership, neuromarketing, and technology was created to find out how much people knew and understood about them. It also analyses each variable, shows how they are related to one another, and shows how much they influence one another.

Participants had to be anchored in entrepreneurial endeavors, be a member of top management in an organisation, and be continuously informed about new innovative practices in order to be a part of the largest community of the Indian Entrepreneurs Group, one of the most significant entrepreneurial community in India, which has 129,000 members on social media. These criteria were used to identify and select the sample for this study. The selection process takes into account the fact that firms with ongoing access to fresh, innovative knowledge and practices exhibit greater willingness to adopting and implementing cutting-edge approaches like neuroleadership in their operations.

Companies were encouraged to take part in the study by responding to a formal online questionnaire that was made available through the Indian Entrepreneurs Group. Within thirty days, 324 businesses replied. Considering the size of this group, the response rate is quite low, yet it meets the segmentation criteria in a way that is instructive for this study.

Research design

The following segmentation factors were taken into consideration when describing the respondents' structure:

Using the national economy's classification of activities, the field of activity is according to the classification of SMEs and major enterprises. The turnover is divided into four categories: less than or equal to Rs. 2 crore, Rs. 2-10 crore, Rs. 10-50 crore, and more than Rs. 50 crore.

Investment is categorized as Domestic, mixed, or foreign capital as a form of investment. Business experience is ranged as 1 year, 1-5 years, 6-10 years, 11-25 years, and > 25 years of business experience. The number of employees had been classified as less than 9, 10-49, 50-249, 250, and more employees. The work experience with the organization has been categorized as less than 1 year, 1-5 years, 6-10 years, 11-25 years, and more than 25 years. The educational level is categorized as Doctorate, Master's degree, Bachelor’s degree, Schooling. The range of age was 18 to 30, 31 to 40, 41 to 50, 51 to 60, and over 60; with the classification of genders as male and female.

The poll was created using the Google form platform, and those who responded were given a link they could access to complete it. The responses were then automatically submitted to the database that had been compiled, and SPSS Statistics 20 was used to analyse the data. A total of 73 questions and nine criteria were included in the questionnaire, which was divided into two sections. The questionnaire was divided into two sections with 5 questions in the first and 68 items in the second. The study is based on 324 responses that were gathered in February 2022 and evaluated using a 5-step Likert scale.

The variables and items used in the questionnaire construction were modified after

a thorough review of the literature of theories and models for adopting technology and innovations, but they also included original elements that delivered the main benefits and risks that may be generated by the adoption of neuroleadership, as well as the main internal and external factors that facilitate or inhibit their adoption process in Indian organisations, making an important contribution.

Questionnaire structure

The variables and items used in the questionnaire construction were modified after a thorough review of the literature of theories and models for adopting technology and innovations, but they also included original elements that delivered the main benefits and risks that may be generated by the adoption of neuroleadership, as well as the main internal and external factors that facilitate or inhibit their adoption process in Indian organisations, making an important contribution.

In order to determine the respondents' level of familiarity and knowledge with the neuroscience practices of neuromarketing and neuroleadership as well as the neuroscience and biometric technology used in these studies, the first section of the questionnaire was designed to gather information on the history and experience of using neuroscience practices and technology in Indian companies.There were 324 validated questionnaire replies in total, with each response standing in for a particular business. More than 74% of the companies said they did not use or are not utilising such approaches in the activity, 3% said they are unsure about this element, 18% said they have used or are using, and 5% said quite explicitly that they have used or are using purely neuromarketing studies. The vast majority of respondents, or the enterprises that haven't utilised or don't employ neuroscience research, show a poor level of awareness and competence with these methods, or even a reluctance to use them in operations carried out by organisations in India.

Additionally, in this area, we sought to determine the organisations in India's level of expertise and knowledge with the concepts of neuroleadership, neuromarketing, neuroscience, and biometric technology. This section's design was based on the idea that it is highly improbable for Indian organisations to begin funding the adoption and implementation of neuroscience studies and technology and encouraging participation in such studies without first having a clear understanding of the general level of knowledge and familiarity surrounding this subject (Constantinescu et al, 2019).

Main findings – at a glance

On a scale of 1 to 10, each participant was required to score their familiarity and understanding with the terms "neuroleadership," "neuromarketing," and "neurotechnology." The lowest level on this scale is 1, and the highest level is 10. The average score for understanding and familiarity with the concept of neuroleadership was 4.14; the scores for neuroleadership, neuromarketing, and technology (EEG, GSR, ET) were 4.23, 4.87, and 4.04, respectively. The overall results show a low level of familiarity with the concepts and technology, indicating the need for intense and thorough communication about neuroscience concepts and technology with Indian businesses and organisations so that they can comprehend the advantages, practicality, and potential effects on organisational performance.

These findings suggest that, although the degree of knowledge and familiarity with concepts related to neuroscience techniques and technology is very low, the market is rather uniform in this regard. The fact that 196 out of 324 respondents, or over 60.49%, indicated they intended to apply neuroleadership studies in the activity conducted is extremely encouraging. Only 19 respondents, or 5.86%, indicated they did not. The difference of 33.65% was neutral, but it was understandable given how little was known about this kind of investigation. These components show that organisations in India have a high level of openness and acceptability toward these kinds of practices. According to the study, just 25 respondents, or 7.71% of those surveyed, said they would not take part in neuroleadership studies in the future. These factors once again reaffirm a high degree of acceptance.

Conclusions

The study combined two studies into one paper: a qualitative study, an exploratory, descriptive research that revealed how Indian organisations felt about the main advantages and risks, as well as the major influences on the adoption of neuroleadership practices and technology. The findings of this study were used to build a quantitative study, causal research that sought to determine the correlations and regression between the major internal and external variables.

According to the study's findings, neuroleadership and other neuroscience techniques are not commonly applied in Indian businesses, and there is little expert knowledge on the subject. Companies with mixed or foreign capital, as well as those with Indian capital that employ more creative methods to management, leadership, or marketing strategies, appear to be more amenable to incorporating neuroscience techniques into their work.

However, respondents' opinions on their willingness to use such studies in the future and their familiarity with and desire for them suggest that Indian organisations do not generally hold neuroscience practices and technologies in the same regard as those described in the literature. It is clear that Indian organisations face obstacles in familiarising and adopting neuroleadership as a practice in their work. According to the survey data, some variables significantly affect the rate of neuroleadership adoption, while others only have a minor impact on people's willingness to adopt neuroscience techniques.

The overall results show a low level of familiarity with the concepts and technology, indicating the need for intense and thorough communication about neuroscience concepts and technology with Indian businesses and organisations so that they can comprehend the advantages, practicality, and potential effects on organisational performance.

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