

A Collective Emotional Field Model (QEFM): A Theoretical and Mathematical Formalization of the Theory of Collective Emotion Integrating Indian Knowledge Systems, Consciousness Science, and the Digital Self

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Abstract

The nature of emotion remains only partially explained within existing psychological and neuroscientific frameworks, which primarily interpret it as a product of neural and cognitive processes. This study proposes the Collective Emotional Field Model (QEFM) as an integrative and analytical framework that reconceptualizes emotion as a field-based phenomenon emerging from the interaction of multiple dimensions. Drawing from Indian Knowledge Systems, collective-inspired theoretical perspectives, and the contemporary influence of the Digital Self, the model positions emotional experience as an outcome of Consciousness Field, Antahkarana configuration, Samskara density, Observer awareness, and Digital influence. The study introduces a mathematical representation of emotional processes and aligns the conceptual framework with Structural Equation Modeling to enable empirical validation. It further incorporates principles such as emotional superposition, observer-dependent collapse, and relational entanglement to explain emotional variability and collective dynamics. The inclusion of digital factors extends the relevance of the model to modern contexts where emotional experiences are increasingly shaped by technological environments. The proposed framework contributes to bridging philosophical depth with analytical rigor and offers a structured foundation for interdisciplinary research in emotion, consciousness, and behavioral studies.

Keywords: Collective Emotion, Antahkarana, Samskara, Observer Awareness, Digital Self, Emotional Field, Structural Equation Modeling, Consciousness, Emotional Entanglement

Introduction

Emotion has been a central subject of inquiry across disciplines such as psychology, neuroscience, and behavioral sciences, yet its fundamental nature remains only partially understood. Conventional approaches have largely focused on explaining emotion as a product of neural activity, cognitive appraisal, and physiological responses. While these approaches have contributed significantly to identifying patterns and mechanisms associated with emotional experience, they often treat emotion as a secondary outcome of biological or psychological processes. Such perspectives do not fully address the deeper question of how emotion originates and why it exhibits variability across individuals, contexts, and time. This limitation indicates the need for a broader and more integrative framework that can account for both internal and external dimensions of emotional experience. Indian Knowledge Systems (IKS) offer a well-established and comprehensive understanding of human consciousness and inner processes, which provides a strong theoretical base for re-examining emotion. Concepts such as Antahkarana, which includes Manas, Chitta, Ahamkara, and Buddhi, describe the structure through which experiences are processed and interpreted. Similarly, the concept of Samskara explains how past impressions influence present behavior and emotional responses. These frameworks suggest that emotion is not merely a reaction to external stimuli but is shaped by accumulated experiences and the state of inner awareness. In addition, the idea of Sakshi Bhava emphasizes the role of observer awareness in regulating emotional responses, indicating that awareness itself plays an active role in shaping emotional outcomes. Recent developments in

theoretical perspectives related to consciousness further support the need to expand the understanding of emotion beyond traditional boundaries. Concepts such as superposition and observer influence, although originating in physical sciences, provide useful parallels for explaining emotional variability and uncertainty. Emotional states are often not fixed and may exist in multiple forms before being consciously experienced. The act of awareness or observation appears to influence which emotional state becomes dominant. This perspective supports the idea that emotion is dynamic and influenced by both internal and relational factors rather than being a fixed outcome.

The rapid expansion of digital environments has introduced a new dimension to emotional experience. Individuals are increasingly exposed to continuous streams of information and emotional stimuli through digital platforms. This exposure leads to the formation of new impressions, referred to as digital samskaras, which influence emotional patterns over time. The concept of the Digital Self reflects how identity and experience are extended into digital spaces, further shaping emotional responses. This shift highlights the importance of including technological factors in any comprehensive model of emotion. The Collective Emotional Field Model (QEFM), which conceptualizes emotion as an emergent phenomenon arising from the interaction of multiple dimensions, including consciousness, internal psychological structure, accumulated impressions, observer awareness, and digital influence. The model provides a structured framework supported by mathematical representation and is aligned with analytical approaches such as Structural Equation Modeling. By integrating traditional knowledge systems with contemporary analytical methods, the study

aims to provide a more complete understanding of emotional processes. The proposed model not only addresses the limitations of existing theories but also creates opportunities for empirical investigation and interdisciplinary research in the field of emotion and consciousness.

Theoretical Foundation

The theoretical foundation of the present research is built on the integration of multiple knowledge domains that collectively explain the nature of emotional experience. The Collective Emotional Field Model (QEFM) is not derived from a single theoretical tradition but is developed through the convergence of Indian Knowledge Systems (IKS), collective consciousness perspectives, contemporary emotion theory, and the emerging influence of the digital environment. This section explains the theoretical base of the model through key sub-components, each representing an important dimension of emotional understanding.

1.1 Indian Knowledge Systems and the Antahkarana Framework

Indian Knowledge Systems (IKS) provide a comprehensive and structured understanding of human consciousness and emotional processes, which serves as a strong theoretical base for the present study. The concept of Antahkarana, discussed extensively in classical Indian philosophy, represents the internal instrument of consciousness consisting of Manas, Chitta, Ahamkara, and Buddhi (Radhakrishnan, 1923; Satchidananda, 2012). Manas is responsible for processing sensory inputs and generating immediate responses, often associated with initial emotional reactions such as attraction or aversion. Chitta functions as the repository of impressions or Samskaras, which are formed through past

experiences and influence present emotional tendencies. Ahamkara represents the sense of identity and determines how individuals associate emotional experiences with themselves, while Buddhi enables discrimination, judgment, and regulation of responses (Feuerstein, 2001). Within this framework, emotion is not considered an isolated or instantaneous reaction but a result of the interaction between these four components. For instance, a situation may trigger Manas, but the resulting emotional intensity is shaped by Chitta through stored impressions. Ahamkara determines the personal significance of the emotion, and Buddhi evaluates and regulates the response. This layered understanding provides a more holistic explanation of emotional processes compared to conventional models, as it incorporates both past experiences and present awareness. It also supports the idea that emotional experience is multidimensional and influenced by internal psychological structures, aligning with the theoretical assumptions of the Collective Emotional Field Model (QEFM).

1.2 Samskara Theory and Emotional Conditioning

The concept of Samskara plays a central role in explaining emotional conditioning within the IKS framework. Samskaras are impressions formed through repeated experiences and are stored within the Chitta, influencing future behavior and emotional responses (Iyengar, 1993). These impressions operate at a deeper level than conscious memory and create tendencies that shape how individuals respond to different situations. This explains why individuals may react differently to similar circumstances, as their responses are influenced by accumulated past experiences. Samskara theory also explains the persistence and reinforcement of emotional

patterns. Repeated emotional responses, such as fear or anger, strengthen the corresponding Samskaras, leading to habitual patterns of behavior. This creates a cyclical process where past experiences influence present emotions, and present experiences contribute to the formation of new Samskaras (Satchidananda, 2012). This perspective is consistent with modern psychological theories of conditioning and learning, where repeated stimuli lead to reinforced behavioral responses (Bandura, 1977). However, the IKS approach extends this understanding by emphasizing the depth and continuity of impression storage, which goes beyond observable behavior. The proposed model, Samskara Density represents the accumulated load of these impressions and serves as a key determinant of emotional intensity and variability. A higher density indicates a stronger influence of past experiences, which can lead to heightened emotional responses even in neutral situations. This provides a theoretical basis for understanding emotional predispositions and variability across individuals.

1.3 Consciousness and Observer Awareness (Sakshi Bhava)

Consciousness is considered the fundamental reality in Indian philosophical traditions, and emotional states are viewed as expressions within this field (Radhakrishnan, 1923). The concept of Sakshi Bhava, or observer awareness, plays a crucial role in understanding emotional regulation. It refers to the ability to observe one's thoughts and emotions without immediate reaction or judgment. This capacity for observation allows individuals to create a distance between themselves and their emotional states, thereby enabling more controlled and balanced responses. When observer awareness is low, individuals tend to react automatically to emotional stimuli, often

leading to impulsive or uncontrolled behavior. In contrast, higher levels of awareness allow individuals to recognize emotional patterns and respond consciously. This concept aligns with contemporary research on mindfulness, which has been shown to improve emotional regulation and psychological well-being (Brown & Ryan, 2003; Kabat-Zinn, 2003). However, the IKS perspective provides a deeper understanding by linking awareness to the nature of consciousness rather than treating it as a learned cognitive skill. In the QEFM, observer awareness is positioned as both a direct and moderating variable. It influences emotional outcomes directly and also alters the impact of other variables such as Samskara Density. For example, individuals with strong observer awareness may be able to regulate emotions effectively even in the presence of high Samskara load. This highlights the importance of awareness in shaping emotional experiences and provides a theoretical foundation for interventions aimed at improving emotional regulation.

1.4 Collective Perspective: Superposition, Observer Effect, and Entanglement

The theoretical foundation of the model is further enriched by incorporating concepts inspired by collective theory. Although these concepts originate in physics, they provide useful parallels for understanding emotional processes. The principle of superposition suggests that multiple states can exist simultaneously before observation (Penrose, 1989). In the context of emotion, this implies that individuals may experience multiple potential emotional states at the same time. For example, a person may feel both excitement and anxiety before an important event, indicating the coexistence of different emotional possibilities. The observer effect, another key concept in collective theory,

suggests that the act of observation influences the outcome (Hameroff & Penrose, 2014). This aligns with the role of observer awareness in shaping emotional experience. When individuals become aware of their emotional states, the act of observation itself influences which emotion becomes dominant. This supports the idea that emotional experience is not fixed but is shaped by awareness. The concept of entanglement further extends this understanding by suggesting that systems can become interconnected, such that the state of one influences the state of another. This is reflected in emotional interactions within social and organizational contexts. Emotional contagion, where the emotions of one individual affect others, has been widely observed in group settings (Barsade, 2002). Similarly, digital platforms enable the rapid spread of emotional content across large populations, further supporting the idea of interconnected emotional states.

These collective-inspired concepts provide a theoretical basis for understanding emotional complexity, variability, and relational dynamics. They suggest that emotional states are not isolated but are influenced by observation and interaction, which aligns with the multidimensional structure of the QEFM.

1.5 Digital Self and Emotional Influence in Contemporary Context

The emergence of digital environments has introduced a new dimension to emotional experience, which is captured in the concept of the Digital Self. Digital identity refers to how individuals represent themselves in online spaces, while digital exposure refers to the type and intensity of content consumed. These factors play a significant role in shaping emotional patterns, as individuals are continuously exposed to emotionally charged content through digital platforms (Turkle,

1995). Repeated exposure to digital content leads to the formation of digital impressions, similar to traditional Samskaras. These digital samskaras influence emotional responses and can reinforce certain patterns of behavior. For example, exposure to negative or stressful content can increase anxiety and emotional instability, while positive content can enhance well-being (Twenge, 2019). The continuous and high-frequency nature of digital exposure amplifies its impact on emotional experience. The inclusion of the Digital Self in the theoretical framework acknowledges that emotional experience is no longer limited to physical interactions. Digital environments have become a major source of emotional influence, making it necessary to incorporate them into models of emotional behavior. This integration extends the relevance of traditional IKS concepts to contemporary contexts and highlights the need for further research on the interaction between technology and emotional processes.

Conceptual Architecture of the Model

The proposed Collective Emotional Field Model (QEFM) presents a structured theoretical and analytical framework for understanding emotion as a multidimensional and field-based construct. Unlike traditional linear models that treat emotion as a dependent outcome of isolated variables, this model conceptualizes emotion as an emergent state arising from the interaction of multiple latent constructs. The architecture of the model is grounded in Indian Knowledge Systems, collective consciousness theory, and contemporary analytical approaches such as Structural Equation Modeling (SEM). This section explains the architecture in detail and provides a step-by-step interpretation of each equation used in the model.

The architecture of the QEFM is based on the assumption that emotional experience is not produced by a single source but is the result of continuous interaction between internal and external dimensions of human existence. These dimensions are represented as latent constructs, which are not directly observable but can be measured through indicators.

The model consists of one dependent construct, namely Collective Emotional State (Eq), and five independent constructs:

- Consciousness Field (C)
- Antahkarana Configuration (A)
- Samskara Density (S)
- Observer Awareness (O)
- Digital Influence (D)

Each of these constructs contributes to the formation of emotional experience. The architecture assumes that these variables do not act independently but operate simultaneously within a dynamic system. Therefore, the emotional state is treated as a **field output** rather than a simple response variable.

1.6 Collective Emotion Equation

The first level of the model is represented through a general functional equation:

$$Eq = f(C, A, S, O, D)$$

This equation indicates that the Collective Emotional State is a function of five major determinants. Each variable represents a specific dimension of human experience.

- **Eq:** Represents the overall emotional state experienced by an individual.
- **C:** Represents the Consciousness Field, which is the base level of awareness or Spanda.
- **A:** Represents the Antahkarana Configuration, indicating the internal psychological structure.
- **S:** Represents Samskara Density, which refers to accumulated impressions stored in Chitta.

- **O:** Represents Observer Awareness, which reflects the level of conscious witnessing.
- **D:** Represents Digital Influence, which captures the impact of digital environments.

This equation shows that emotion is not treated as a single dependent variable influenced by isolated predictors. Instead, emotion is considered as a composite output of interacting latent **variables**. This aligns with the logic of SEM, where multiple constructs simultaneously influence an outcome. The equation also implies that emotional experience cannot be fully explained by biological or psychological factors alone. It must include consciousness-based and environmental factors, especially in the context of digital exposure.

1.7 Expanded Functional Model

To provide a more structured analytical representation, the model is expanded into a linear form:

$$Eq = \alpha C + \beta A + \gamma S + \delta O + \lambda D + \epsilon$$

Here, each variable is assigned a coefficient representing its influence on emotional state.

- α : Effect of Consciousness Field
- β : Effect of Antahkarana
- γ : Effect of Samskara Density
- δ : Effect of Observer Awareness
- λ : Effect of Digital Influence
- ϵ : Residual error term

This equation allows the model to be statistically tested using regression or SEM techniques. Each coefficient represents the strength and direction of influence.

- If ($\gamma > 0$), it indicates that higher Samskara density leads to stronger emotional intensity. This means that accumulated impressions significantly influence emotional reactions.
- If ($\delta > 0$), it indicates that higher observer awareness leads to better emotional

regulation. This suggests that individuals with higher awareness can manage emotions more effectively.

- If ($\lambda > 0$), it indicates that digital exposure increases emotional volatility. This reflects the influence of digital environments on emotional fluctuations.

The residual term ε represents unexplained variance, which may arise from unobserved variables or measurement errors. This equation transforms the conceptual model into a testable analytical framework, enabling hypothesis testing and empirical validation.

1.8 Superposition Model of Emotion

The model introduces a unique perspective based on collective theory, where emotional states are considered to exist in multiple possibilities before being experienced. This is represented as:

$$E_q = \sum(p_i * e_i) \text{ for } i = 1 \text{ to } n$$

Where:

- e_i : Possible emotional states
- p_i : Probability associated with each state

This equation suggests that emotion is not fixed before conscious awareness. Instead, multiple emotional possibilities exist simultaneously within the individual. These possibilities are influenced by internal and external factors such as past experiences, current context, and mental state. Before observation, an individual may simultaneously hold conflicting emotional tendencies, such as fear and excitement. The probability values determine which emotion is more likely to emerge. This representation supports the idea of emotional uncertainty and variability, which is often observed in real-life situations. It also provides a theoretical basis for understanding emotional confusion or mixed feelings.

1.9 Collapse Function (Observer Effect)

The transition from potential emotional states to actual experienced emotion is represented through the collapse function:

$$E_{\text{observed}} = \Psi(O, E_q)$$

Where:

- **E_{observed}**: Final experienced emotion
- **O**: Observer Awareness
- **Ψ** : Transformation function

This equation explains that emotional experience is shaped by the quality of awareness. The observer does not passively experience emotion but actively influences which emotional state becomes dominant. If observer awareness is high, the individual can consciously process emotional states, leading to balanced outcomes. If awareness is low, emotions may be reactive and uncontrolled. This aligns with the concept of Sakshi Bhava, where awareness acts as a regulator of emotional experience. From a research perspective, this suggests that observer awareness can act as a moderating variable in the model.

1.10 Emotional Entanglement Model

The model extends beyond individual emotion and incorporates relational dynamics:

$$E_i \leftrightarrow E_j \text{ if } R_{ij} > \theta$$

Where:

- **E_i, E_j** : Emotional states of two individuals
- **R_{ij}** : Strength of relationship
- **θ** : Threshold level

This equation suggests that emotions are not isolated within individuals but can influence others when relational intensity crosses a certain threshold. For example, in close relationships or organizational settings, the emotional state of one individual can affect

others. This phenomenon is commonly observed as emotional contagion.

This equation provides a mathematical representation for:

- Collective emotional behavior
- Organizational culture
- Social and digital emotional spread

It supports the idea that emotional systems operate at both individual and collective levels.

1.11 Digital Self Amplification Model

The role of digital environments is incorporated through the following equation:

$$D = f(Ad, Sd, Eexposure)$$

Where:

- **Ad:** Digital identity
- **Sd:** Digital samskaras

• **Eexposure:** Exposure to digital content
This equation explains how digital influence is formed. Digital identity reflects how individuals present themselves online. Digital samskaras represent impressions formed through repeated digital exposure. Emotional exposure refers to the type and intensity of content consumed. Higher digital exposure leads to stronger digital samskaras, which in turn influence emotional patterns. This explains why prolonged exposure to certain types of content can affect emotional stability. This component is important in modern research as it integrates technology-driven emotional changes into the model.

1.12 SEM Representation of the Model

The SEM architecture of the model provides a visual and statistical representation of the relationships between variables.

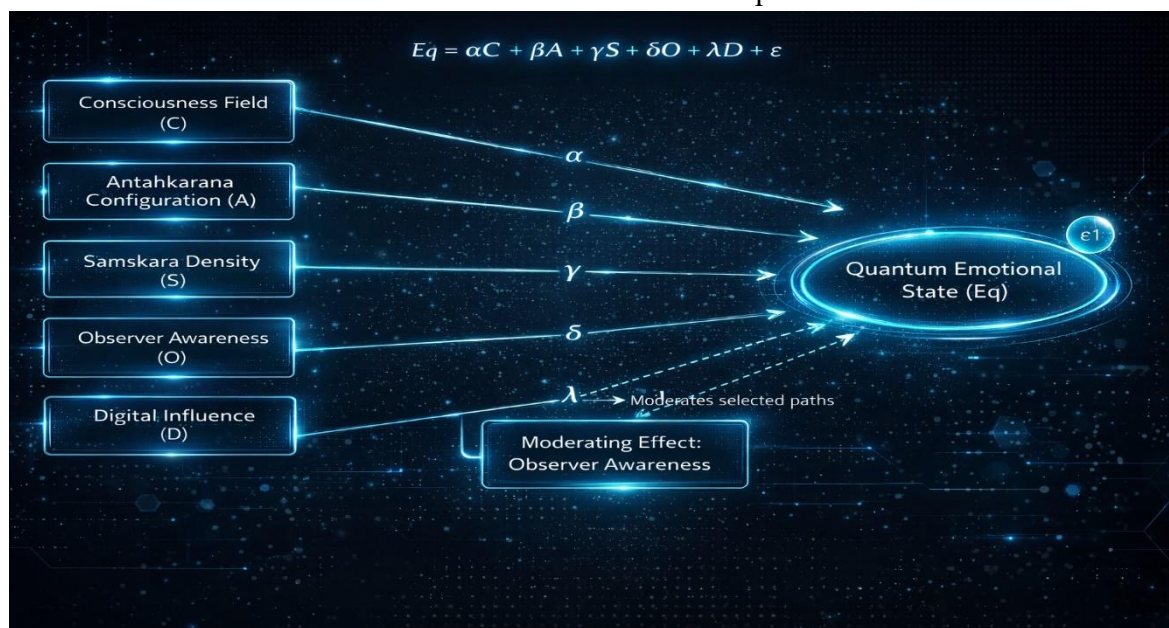


Figure 1 SEM Representation of the Model

In the SEM structure:

- The five independent constructs (C, A, S, O, D) are exogenous variables.
- The Collective Emotional State (Eq) is the endogenous variable.
- Direct paths exist from each independent variable to the dependent variable.

Observer Awareness (O) may act as a moderating variable influencing other relationships.

- The error term represents unexplained variance.

The diagram shows that each construct contributes directly to emotional state. The path coefficients (α , β , γ , δ , λ) represent the

strength of these relationships. The inclusion of a moderating effect indicates that the impact of certain variables may change depending on the level of observer awareness. For example, high awareness may reduce the negative impact of samskara density.

From a statistical perspective, this model can be tested using:

- Confirmatory Factor Analysis (CFA) for measurement validation
- Structural Equation Modeling (SEM) for path analysis
- Model fit indices such as CFI, RMSEA, and TLI

The SEM framework allows the model to move from a conceptual stage to an empirical stage.

The proposed SEM architecture conceptualizes Collective Emotional State as the endogenous latent construct influenced by five exogenous constructs, namely Consciousness Field, Antahkarana Configuration, Samskara Density, Observer Awareness, and Digital Influence. The directional paths indicate the hypothesized structural effects of each construct on emotional state, while the error term captures unexplained variance within the model. Observer Awareness is additionally positioned as a moderating mechanism, indicating that the quality of witnessing consciousness may alter the strength of selected structural relationships. This architecture provides a theoretically grounded basis for future empirical validation using structural equation modeling.

Conceptual Representation

The conceptual representation of the Collective Emotional Field Model (QEFM) is grounded in the understanding that emotion is not a linear or isolated psychological outcome but a dynamic and emergent phenomenon arising from the interaction of multiple latent

constructs. The model integrates insights from Indian Knowledge Systems, collective theoretical principles, and contemporary behavioral frameworks to establish a multidimensional representation of emotional experience. At the conceptual level, the model positions Collective Emotional State (Eq) as the central construct, which is influenced by five primary dimensions: Consciousness Field (C), Antahkarana Configuration (A), Samskara Density (S), Observer Awareness (O), and Digital Influence (D). These constructs are not treated as independent determinants but as interrelated components operating within a unified field system.

The Consciousness Field (C) represents the foundational layer of experience, corresponding to the concept of Spanda, which reflects the vibratory nature of consciousness. It is assumed that all emotional phenomena emerge from this field, making it the base construct of the model. The Antahkarana Configuration (A) represents the internal psychological structure, comprising Manas, Chitta, Ahamkara, and Buddhi, which collectively process and interpret emotional stimuli. Samskara Density (S) reflects the accumulated impressions stored within Chitta, which shape emotional tendencies and predispositions over time. Observer Awareness (O) is conceptualized as a higher-order regulatory mechanism, corresponding to Sakshi Bhava, which determines the degree to which emotional states are consciously observed and regulated. Digital Influence (D) represents the external dimension, capturing the role of digital environments in shaping emotional patterns through repeated exposure and impression formation. The conceptual model assumes that emotional states exist in a probabilistic and fluid form prior to conscious experience, as represented by the superposition equation:

$$Eq = \Sigma(pi * ei) \text{ for } i = 1 \text{ to } n$$

This representation indicates that multiple emotional states coexist within the individual, each associated with a probability weight. The presence of multiple emotional possibilities explains the occurrence of mixed emotions and emotional ambiguity in real-life situations.

The transition from potential emotional states to actual experienced emotion is governed by the observer function:

$$E_{\text{observed}} = \Psi(O, E_q)$$

This equation highlights the role of observer awareness in determining which emotional state becomes dominant. The function (Ψ) represents the transformation of emotional potential into actual experience, influenced by the level of awareness.

Further, the conceptual model extends beyond individual-level analysis by incorporating relational dynamics through the entanglement equation:

$$E_i \leftrightarrow E_j \text{ if } R_{ij} > 0$$

This indicates that emotional states are interconnected across individuals, particularly when relational intensity exceeds a certain threshold. This provides a conceptual basis for understanding collective emotions, organizational culture, and social emotional dynamics.

The Digital Self component is integrated through the following representation:

$$D = f(Ad, Sd, E_{\text{exposure}})$$

This equation conceptualizes digital influence as a function of digital identity, digital samskaras, and exposure to digital content. It reflects the increasing role of digital environments in shaping emotional experiences in contemporary contexts. The conceptual representation of QEFM reflects a systems-based and integrative approach, where emotion is viewed as a field phenomenon influenced by internal structure,

consciousness dynamics, and external environmental factors.

Analysis of the Collective Emotional Field Model (QEFM)

The analytical framework of the Collective Emotional Field Model is designed to translate the conceptual structure into a testable and interpretable system. The model adopts an inferential approach, allowing the relationships between variables to be examined using statistical techniques such as regression analysis and Structural Equation Modeling (SEM).

The expanded functional equation of the model is expressed as:

$$E_q = \alpha C + \beta A + \gamma S + \delta O + \lambda D + \epsilon$$

This equation provides a quantitative representation of the influence of each construct on emotional state. Each coefficient represents the strength and direction of the relationship between the independent variable and the dependent variable. From an analytical perspective, Samskara Density (S) is expected to have a significant positive influence on emotional intensity. A higher value of γ would indicate that accumulated impressions strongly shape emotional responses. This aligns with the theoretical understanding that past experiences stored in Chitta influence present emotional states.

Observer Awareness (O) is expected to play a critical role in moderating emotional outcomes. A positive value of δ would indicate that higher awareness contributes to better emotional regulation. This suggests that individuals with higher levels of conscious observation are more capable of managing emotional fluctuations. Digital Influence (D) is expected to have a direct and possibly amplifying effect on emotional variability. A positive value of λ would indicate that increased exposure to digital environments leads to greater emotional instability. This

reflects the impact of continuous digital engagement on emotional patterns. The Consciousness Field (C) and Antahkarana Configuration (A) are foundational constructs that provide structural support to the model. Their coefficients (α and β) represent the extent to which base consciousness and internal psychological structure influence emotional outcomes.

The residual term ϵ represents unexplained variance, which may arise due to measurement limitations or the presence of additional variables not included in the model. The magnitude of this term provides insight into the completeness of the model. From a Structural Equation Modeling perspective, the model can be evaluated using multiple statistical parameters. The strength of relationships between constructs can be assessed through path coefficients, while the overall model fit can be evaluated using indices such as Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Tucker-Lewis Index (TLI).

The explanatory power of the model can be assessed using the coefficient of determination (R^2), which indicates the proportion of variance in emotional state explained by the independent variables. A higher R^2 value would suggest that the model effectively captures the determinants of emotional experience. The inclusion of the superposition and collapse equations introduces a probabilistic dimension to the analysis, suggesting that emotional states are not deterministic but influenced by multiple potential outcomes. This aligns with real-world observations where emotional responses vary across individuals and situations. The entanglement component extends the analysis to collective contexts, indicating that emotional states can propagate across individuals. This has significant implications for understanding group

behavior, organizational dynamics, and social interactions.

The Digital Self component introduces a contemporary dimension to the analysis, highlighting the role of technology in shaping emotional experiences. The integration of this variable ensures that the model remains relevant in modern contexts where digital interactions play a significant role. The analysis of the QEFM demonstrates that emotional experience is a result of complex interactions between multiple dimensions. The model provides a structured and measurable framework that can be empirically tested, thereby bridging the gap between theoretical concepts and analytical application.

Theoretical Contribution

The present study makes a significant theoretical contribution by proposing a structured and integrative framework for understanding emotion beyond the boundaries of conventional psychological and neuroscientific models. The Collective Emotional Field Model (QEFM) introduces a multidimensional perspective in which emotion is conceptualized not merely as a response or outcome variable, but as a field-based emergent construct arising from the interaction of consciousness, internal psychological structures, accumulated impressions, observer awareness, and digital influence.

One of the primary contributions of this study lies in the redefinition of emotion at the ontological level. Existing theories in emotion research, including biological, cognitive, and constructivist approaches, predominantly locate emotion within the brain or within individual cognitive processing systems. While these frameworks have provided substantial empirical insights, they often treat emotion as a derivative phenomenon. In

contrast, the proposed model positions emotion as a primary phenomenon emerging from the consciousness field. This shift from a reductionist to a field-based understanding contributes to expanding the theoretical scope of emotion research. A second major contribution is the integration of Indian Knowledge Systems with contemporary analytical modeling. Concepts such as Antahkarana, Samskara, and Sakshi Bhava have traditionally been discussed in philosophical and spiritual contexts without formal analytical representation. This study bridges that gap by translating these constructs into measurable variables and embedding them within a structured mathematical and SEM framework. By doing so, the study enhances the applicability of IKS in modern research and enables empirical validation of traditionally qualitative concepts.

The study also contributes by introducing a collective-informed perspective to emotional theory. The incorporation of concepts such as superposition, observer effect, and entanglement provides a novel way to explain emotional variability, ambiguity, and relational influence. The superposition model explains how multiple emotional states can coexist prior to conscious experience, while the collapse function highlights the role of observer awareness in shaping emotional outcomes. Similarly, the entanglement model extends emotional theory beyond the individual level, providing a framework for understanding collective emotional dynamics. Another important contribution is the mathematical formalization of emotional processes. The use of equations to represent emotional interactions transforms abstract theoretical ideas into a structured and testable model. This formalization allows the model to be analyzed using statistical techniques such as regression and Structural Equation

Modeling. As a result, the study provides a bridge between conceptual theory and empirical research, which is often lacking in interdisciplinary frameworks. The Digital Self as a theoretical construct represents a contemporary contribution to emotion research. While existing theories have focused primarily on biological and social influences, this study acknowledges the increasing role of digital environments in shaping emotional experiences. By introducing variables such as digital identity, digital samskaras, and digital exposure, the model captures the evolving nature of human experience in the digital age. This contribution ensures that the theoretical framework remains relevant to current and future contexts.

The study further contributes by presenting a multi-level framework of emotion, encompassing individual, relational, and collective dimensions. Traditional models often focus on individual emotional processes, with limited attention to how emotions propagate across groups and systems. The entanglement component of the model provides a theoretical basis for understanding emotional transmission within organizations, communities, and digital networks. This expands the scope of emotional theory to include social and organizational contexts. The study contributes by aligning the proposed model with Structural Equation Modeling (SEM). By defining latent constructs and specifying relationships between them, the model becomes suitable for empirical testing. This integration of theoretical constructs with statistical modeling techniques enhances the robustness and applicability of the framework. It also provides researchers with a clear pathway for validating the model using quantitative data. The conceptualization of observer awareness as a moderating

mechanism. While many existing models acknowledge the role of cognition in emotion, they do not explicitly define the role of awareness in shaping emotional outcomes. The present study identifies observer awareness as a critical factor that influences how emotional states are experienced and regulated. This adds depth to the understanding of emotional control and self-regulation. The study also contributes to the theoretical understanding of emotional variability and uncertainty. By introducing probabilistic representations of emotion, the model accounts for the dynamic and non-deterministic nature of emotional experience. This is particularly important in explaining why individuals may experience different emotions in similar situations or why emotional responses may change over time. In addition, the model provides a unified framework that connects multiple disciplines, including psychology, consciousness studies, management, and digital behavior. This interdisciplinary integration is a key strength of the study, as it brings together diverse perspectives into a coherent theoretical structure. Such integration is essential for addressing complex phenomena like emotion, which cannot be fully understood within the boundaries of a single discipline. The study contributes by offering a foundation for future research and theory development. The proposed model is not presented as a closed system but as an evolving framework that can be expanded and refined. Future studies can build upon this model by testing specific relationships, adding new variables, or applying the framework in different contexts such as clinical psychology, organizational behavior, or digital well-being. The theoretical contribution of this study lies in its ability to redefine emotion, integrate traditional and modern knowledge systems, introduce collective-informed perspectives,

formalize emotional processes mathematically, incorporate digital influences, and provide a structured framework for empirical validation. These contributions collectively advance the understanding of emotion and open new directions for interdisciplinary research.

Implications for Indian Knowledge Systems (IKS) Research

The proposed Collective Emotional Field Model (QEFM) offers important implications for Indian Knowledge Systems (IKS) research by providing a structured and analytical framework for examining traditionally philosophical concepts. IKS has long explained human experience through constructs such as Antahkarana, Samskara, and Sakshi Bhava; however, these concepts have largely remained qualitative. The present model enables their operationalization into measurable constructs, allowing them to be studied empirically. The integration of IKS with modern research methodologies, particularly Structural Equation Modeling (SEM). By treating IKS concepts as latent variables and defining their relationships mathematically, the model allows researchers to test these ideas using statistical tools. This improves the methodological rigor of IKS research and supports its acceptance within contemporary academic frameworks. The model also contributes to the scientific understanding of consciousness, positioning it as a foundational variable influencing emotional states. This aligns with classical IKS perspectives while making them suitable for analytical study. Additionally, the inclusion of Observer Awareness (Sakshi Bhava) highlights its role in emotional regulation, opening avenues for research on mindfulness and contemplative practices. The extension of IKS into digital contexts. The introduction of digital samskaras and digital

influence provides a framework to study how technology shapes emotional experience, which is not addressed in traditional texts. The model strengthens IKS research by connecting philosophical depth with empirical validation, enabling interdisciplinary studies and expanding its relevance in modern academic and applied domains.

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