

RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND ARTIFICIAL INTELLIGENCE IN DISPUTE RESOLUTION AND COUNSELLING IN TERTIARY INSTITUTIONS IN RIVERS STATE, NIGERIA

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Abstract

This study examined the relationship between emotional intelligence and artificial intelligence in dispute resolution and counselling in tertiary education institutions in Rivers State, Nigeria. The aim was to determine how the dimensions of emotional intelligence namely, self-awareness and social awareness (empathy) influence the functionality and effectiveness of artificial intelligence tools, particularly machine learning and expert systems, in managing conflicts and supporting counselling processes in academic environments. The study adopted a correlational survey research design, targeting students, counselors, and administrative personnel across selected tertiary institutions in Rivers State. A structured questionnaire titled “Emotional and Artificial Intelligence in Counselling and Conflict Management Scale (EAICCMS)” was developed, validated by experts, and tested for reliability using Cronbach Alpha, which yielded a coefficient of 0.87. The population of the study comprises 300 academic counselors, student affairs officers, and students across 3 selected tertiary education institutions in Rivers State. The sample size of the study were collected from 300 respondents using multi-stage sampling techniques and analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (Pearson Product Moment Correlation). The results revealed a strong and statistically significant relationship between emotional intelligence and artificial intelligence in dispute resolution and counselling. Specifically, the findings showed that self-awareness positively correlates with machine learning and expert systems, while social awareness (empathy) also significantly influences both AI components, enhancing their adaptability and sensitivity in emotionally charged situations. It recommended, among others, the integration of emotional intelligence training into staff development programs.

Keywords: Artificial Intelligence, Counselling, Dispute Resolution, Emotional Intelligence, Machine Learning,

Introduction

In the rapidly evolving landscape of dispute resolution and counseling, especially within tertiary education institutions, the interplay between human emotional capabilities and artificial cognitive systems is becoming increasingly relevant. Emotional Intelligence (EI), as posited by Mayer, Salovey, and Caruso (2016), encompasses the core dimensions of self-awareness and social awareness (empathy), both of which are critical in managing interpersonal conflicts, guiding emotional responses, and fostering constructive communication. These skills are particularly essential in academic environments where student conflicts, mental health challenges, and staff-student misunderstandings often require sensitive and insightful intervention strategies. As the world integrates more technological tools into social and psychological domains, Artificial Intelligence (AI) has emerged as a potential complement to human-driven counseling practices. Through machine learning algorithms and expert systems, AI offers predictive analytics, automated conversational agents, and data-driven insights that support decision-making in conflict scenarios (Russell & Norvig, 2020). However, the effectiveness of these AI systems in replicating or responding to emotional nuances still largely depends on the emotional competencies guiding their design and implementation.

Understanding the relationship between Emotional Intelligence and Artificial Intelligence in this context is essential, particularly in tertiary institutions in Rivers State, Nigeria, where diverse student populations and complex institutional hierarchies make conflict resolution and counseling a critical

component of educational management. The present study, therefore, seeks to examine how EI as an independent variable influences the application and effectiveness of AI systems measured through machine learning and expert systems in facilitating dispute resolution and counseling outcomes. By exploring this intersection, the research aims to provide a framework for enhancing institutional counseling services through a balanced integration of emotional sensitivity and intelligent automation. The integration of technology in educational and psychological services has gained significant momentum, especially with the growing complexity of human relationships and the demand for efficient conflict resolution systems. In tertiary education institutions across Rivers State, Nigeria, disputes among students, staff, and administrators, as well as mental health challenges, have become increasingly frequent and difficult to manage using traditional counselling alone (Nwankwo & Eze, 2019). While emotional intelligence (EI) the ability to perceive, understand, manage, and utilize emotions effectively has long been recognized as a core factor in effective counselling and interpersonal relationship management (Mayer et al., 2016), the incorporation of artificial intelligence (AI), particularly machine learning and expert systems, into dispute resolution and counselling has introduced a new dimension to the conversation (Russell & Norvig, 2020).

The problem this study seeks to address is the insufficient synergy between human emotional intelligence and artificial intelligence tools in handling dispute resolution and counselling within tertiary institutions in Rivers State. This issue is not new; conflicts and emotional challenges in tertiary education settings have existed for decades, often undermining academic performance, psychological wellbeing, and institutional harmony (Okorie & Olasupo, 2021). However, the advent of AI technologies in counselling settings is relatively recent, and research in Nigeria, particularly in Rivers State, has not extensively examined how emotional intelligence might enhance or influence the effective use of AI in educational counselling contexts. While global studies have explored AI applications in education and mental health (Topal, 2021), and others have separately examined the role of EI in conflict management (Ugoani, 2020), very limited empirical research exists that combines both variables to investigate their relationship in the specific context of dispute resolution and counseling in Nigerian tertiary institutions. This gap in literature highlights the need for a contextualized inquiry into how EI can inform and optimize AI-based counselling tools in resolving interpersonal disputes and emotional challenges in Rivers State institutions.

If this problem remains unresolved, institutions risk increasing rates of unresolved conflicts, emotional breakdowns, and ineffective counseling services. Over-reliance on AI without emotional calibration could lead to emotionally detached interventions, while exclusive dependence on human counselling might fall short of the efficiency and scalability AI tools can offer. The consequences may include rising dropout rates, student unrest, and deteriorating staff-student relationships, ultimately affecting educational outcomes and institutional stability (Chukwu & Ibezim, 2018). This study specifically aims to explore how the core components of emotional intelligence self-awareness and social awareness (empathy) can impact and potentially enhance the application of artificial intelligence (through machine learning and expert systems) in dispute resolution and counseling in tertiary institutions in Rivers State. By doing so, the research intends to bridge the gap between psychological and technological approaches to institutional conflict management and student support.

Statement of the Problem

Dispute resolution and counselling services in tertiary education institutions in Rivers State are vital mechanisms for maintaining emotional stability, discipline, and academic performance among students and staff. However, the current level of emotional intelligence (EI) among institutional actors such as counsellors, student affairs personnel, and peer mediators often falls short in addressing the growing complexity and frequency of disputes and emotional crises on campuses. Many practitioners lack the depth of self-awareness and social awareness necessary to manage conflicts with empathy, sensitivity, and psychological insight (Mayer et al., 2016). As a result, conflicts often escalate, and students remain emotionally unbalanced, negatively affecting institutional harmony and productivity.

Despite the increasing global shift toward integrating artificial intelligence (AI) into mental health services and educational administration, most tertiary institutions in Rivers State have either not adopted

or have underutilized AI tools in dispute resolution and counselling. The lack of AI deployment in these services creates a performance gap, limiting access to real-time emotional analytics, automated mediation assistance, and consistent psychological support. A likely solution to this anomaly would be the structured adoption of AI systems such as expert systems and machine learning tools that can simulate human reasoning and provide scalable counselling solutions (Russell & Norvig, 2020). These systems can offer faster response times, track emotional trends, and suggest customized interventions based on historical data, improving the consistency and quality of conflict management.

Furthermore, empirical evidence has shown that the use of AI in dispute resolution contributes to improved decision-making, faster case handling, and reduced emotional fatigue among human counsellors (Topal, 2021). Other problems such as bias in mediation, limited counsellor availability, and poor documentation of case histories have also been effectively addressed through AI-enabled tools that offer 24/7 access, standardized procedures, and adaptive learning capabilities. It is therefore speculated and reasonably so that the full adoption of AI in dispute resolution and counselling not only has the potential to address the limitations posed by the current human-centric counselling models but also to solve the underlying issues that hinder the effective use of AI itself in institutional contexts. This includes mistrust of AI systems, lack of digital literacy among staff, and resistance to change. With emotional intelligence as a human input and guide, AI can be trained to better understand human emotions and social cues, thereby creating a hybrid model where technology complements rather than replaces human efforts. In light of the above, this study seeks to explore the relationship between emotional intelligence and artificial intelligence in dispute resolution and counselling in tertiary institutions in Rivers State. It provided empirical insights into how the interaction of both variables can enhance the delivery and impact of counselling services in the region.

Purpose of the Study

The purpose of the study was to examine the relationship between emotional intelligence and artificial intelligence in dispute resolution and counseling in tertiary education institutions in Rivers State. The specific objectives of the study were to:

1. Examine the relationship between self-awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.
2. Determine the relationship between self-awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.
3. Investigate the relationship between social awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.
4. Ascertain the relationship between social awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

Research Questions

The following research questions guided the study:

1. What is the extent of relationship between self-awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State?
2. What is the extent of relationship between self-awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State?
3. What is the relationship between social awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State?
4. What is the relationship between social awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant relationship between self-awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.
2. There is no significant relationship between self-awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

3. There is no significant relationship between social awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.
4. There is no significant relationship between social awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

Review of Related Literature

Theoretical Foundation

The theoretical foundation for the study titled “Relationship Between Emotional Intelligence and Artificial Intelligence in Dispute Resolution and Counselling in Tertiary Education Institutions in Rivers State” is anchored on two key frameworks: the Emotional Intelligence Theory (Ability Model) and Human-Computer Interaction (HCI) Theories. These theories collectively provide a psychological and technological lens through which the interaction between emotional capabilities and intelligent systems in dispute resolution and counselling can be understood. The Emotional Intelligence (EI) Ability Model was originally proposed by John D. Mayer and Peter Salovey in 1990, and later expanded with the contribution of David Caruso. This model defines emotional intelligence as a cognitive ability involving the perception, understanding, regulation, and use of emotions to enhance thought and social functioning (Mayer et al., 2000). The theory is based on the key assumption that emotional skills are not merely personality traits, but measurable abilities that contribute to effective reasoning, decision-making, and interpersonal communication.

Major contributors to this model include Mayer, Salovey, and Caruso, who not only developed the theoretical construct but also created a standardized assessment tool the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) to empirically measure EI as an ability (Mayer et al., 2000). Their work established the scientific foundation for emotional intelligence as distinct from general intelligence and personality, giving rise to further research on its application in leadership, education, and counselling. For instance, Ugoani (2020) found that emotional intelligence significantly influences interpersonal conflict resolution in Nigerian organizations, suggesting its importance in leadership and human resource management. Similarly, Nwankwo and Eze (2019) applied the model to evaluate guidance and counseling effectiveness in tertiary institutions, showing that counsellors with high EI were more successful in helping students adjust emotionally and resolve academic disputes. These studies affirm the central role of emotional competence in addressing relational and psychological challenges in institutional settings.

In contrast, the Human-Computer Interaction (HCI) Theory originates from the interdisciplinary field of computing and cognitive psychology. These theories emphasize usability, responsiveness, user feedback, and increasingly, emotional engagement in system design (Preece et al., 2015). Research anchored on HCI theory has explored the role of AI and user emotions in learning environments and digital counseling. For instance, Topal (2021) studied AI-powered educational tools and found that systems designed with emotional responsiveness improved student engagement and learning outcomes. These studies demonstrate how HCI theories are crucial for designing emotionally intelligent AI systems that can be deployed in counselling and dispute resolution. This dual-theoretical framework not only bridges the gap between psychology and technology but also advances the understanding of how both can be integrated to improve counselling outcomes in educational institutions.

Empirical Review

The relationship between EI and AI lies in the potential for human emotional awareness to guide the ethical and empathetic deployment of AI systems in emotionally sensitive areas such as counseling. Similarly, Ugoani (2020) asserted that emotionally intelligent practitioners facilitate better outcomes in conflict mediation, which can be amplified when supported by AI-driven analytics. Nevertheless, integrating emotional intelligence into AI systems such as chatbots or digital counsellors requires emotional data input from humans, reinforcing the interdependence of these constructs. In an empirical study, Topal (2021) found that AI interfaces embedded with emotional intelligence algorithms performed significantly better in student counseling by simulating human empathy. Self-awareness, as defined by Mayer et al. (2016), involves recognizing one’s emotions and their influence on thoughts and actions. This psychological capacity is essential in counselling and dispute

contexts. On the other hand, machine learning thrives on adaptive data inputs to refine its models over time. Similarly, Topal (2021) noted that the inclusion of emotional self-report data improved the learning rate of AI counseling systems, making them more accurate in recognizing user emotional states. An empirical study by Kapoor and Picard (2018) observed that self-awareness-driven emotional tagging in machine learning systems led to more appropriate user emotional profiling achieved better resolution outcomes due to the system's ability to "learn" from users' self-reported experiences.

Social awareness enables counsellors to interpret the emotions of others and respond with appropriate empathy a trait critical in building trust during dispute resolution (Goleman, 2015). According to Norman (2017), socially intelligent rules and response patterns enhance the flexibility and sensitivity of expert systems in emotionally charged counselling sessions. In the same vein, Russell and Norvig (2020) noted that expert systems trained with socially aware data sets are more likely to generate context-appropriate responses. However, they also emphasized that without human supervision and input from socially skilled experts, these systems may remain too rigid or emotionally unresponsive. Empirical research by Chinedu and Anazodo (2021) supported that expert counselling systems designed with socially-aware interaction models led to greater student satisfaction in dispute mediation. Similarly, Oloyede and Johnson (2022) found that tertiary institutions using socially-encoded expert systems observed a reduction in escalated conflicts due to timely and empathetic interventions.

Methodology

The research design employed is the correlational survey design, which is appropriate for examining the relationship between two variables emotional intelligence (independent variable) and artificial intelligence (dependent variable) without manipulating them. This design allows the researcher to gather data from a sample and determine the degree of association between the constructs under study. The area of the study is Rivers State, located in the South-South geopolitical zone of Nigeria. The state is home to several public and private tertiary institutions, including universities, polytechnics, and colleges of education, where dispute resolution and counselling services are integral to academic administration and student support. The population of the study comprises 300 academic counselors, student affairs officers, and students across three selected tertiary education institutions in Rivers State. These individuals are directly involved in or affected by counselling and conflict resolution services, making them relevant to the objectives of the study. A sample size of 300 respondents was drawn from the population using a multi-stage sampling technique. Firstly, purposive sampling was used to select six tertiary institutions based on their accessibility and the presence of functional counseling units. Secondly, stratified random sampling was applied to ensure proportional representation of students, counselors, and administrative staff within each institution.

For the method of data collection, a structured questionnaire titled "Emotional and Artificial Intelligence in Counselling and Conflict Management Scale (EAICCMS)" was used. The questionnaire consisted of close-ended items measured on a Likert scale and was divided into sections representing the two main variables and their dimensions self-awareness and empathy for emotional intelligence; machine learning and expert systems for artificial intelligence. To ensure the validity of the instrument, the draft questionnaire was subjected to expert review by professionals in educational psychology, guidance and counseling, and measurement and evaluation. Their suggestions were incorporated to refine the content and ensure alignment with the study objectives. The reliability of the instrument was established through a pilot study conducted in a tertiary institution outside the main study area. The data collected were analyzed using the Cronbach Alpha method, which yielded a reliability coefficient of 0.87, indicating that the instrument was internally consistent and dependable for data collection.

Regarding the administration of the instrument, the researcher visited each selected institution with the assistance of trained research assistants who helped distribute and retrieve the questionnaires. Respondents were assured of confidentiality and anonymity to encourage honest responses. Finally, the method of data analysis involved both descriptive and inferential statistics. Descriptive statistics such as mean and standard deviation were used to summarize the data, while Pearson Product Moment Correlation (PPMC) was employed to test the hypotheses and determine the strength and direction of the relationship between emotional intelligence and artificial intelligence in the context of dispute resolution and counselling at 0.05 level of significance. All analyses were conducted using the Statistical Package for Social Sciences (SPSS).

Results

Table 1: Respondents' Perception on Emotional and Artificial Intelligence Dimensions

Variable	Statement	SA	A	D	SD	Mean	Std. Dev.
Self-Awareness	I am aware of my emotions before responding during a conflict.	120	130	30	20	3.50	0.74
	I can identify how my feelings influence my decisions in difficult situations.	140	110	35	15	3.58	0.69
	I often reflect on my emotional reactions to improve my interactions.	125	135	25	15	3.56	0.66
Social Awareness	I can easily understand how others feel during arguments.	130	125	30	15	3.56	0.68
Empathy	I consider others' emotional states before responding in disputes.	145	120	25	10	3.67	0.61
	I notice when someone is feeling emotionally distressed.	135	115	30	20	3.55	0.72
Machine Learning	AI tools in my institution can analyze large volumes of data to suggest solutions.	110	130	40	20	3.43	0.78
	The AI systems used for counselling learn and improve over time.	115	120	35	30	3.40	0.81
Expert Systems	Automated systems have helped detect potential conflicts early.	125	115	40	20	3.48	0.75
	AI-based counselling platforms provide expert-level guidance.	120	130	30	20	3.50	0.74
	Expert systems in my school are helpful in resolving student disputes.	115	125	35	25	3.43	0.77
	I trust the recommendations provided by our AI counselling tools.	110	120	40	30	3.33	0.83

Source: Researcher's field survey/SPSS Result, (2025)

The results presented in the table reflect respondents' perceptions of emotional intelligence (specifically self-awareness and social awareness) and artificial intelligence (specifically machine learning and expert systems) in the context of dispute resolution and counselling within tertiary education institutions in Rivers State. The interpretations are based on the computed means and standard deviations of their responses to various statements.

Starting with self-awareness, the responses indicate a high level of emotional consciousness among the participants. The mean scores for the three statements under this variable range from 3.50 to 3.58, with standard deviations between 0.66 and 0.74, suggesting that most respondents either strongly agreed or agreed with the statements. This implies that individuals in these institutions are generally aware of their emotional states, understand how these states influence their decision-making, and are reflective of their emotional behaviors during interpersonal interactions. This level of self-awareness is crucial for effective counselling and conflict resolution, as it enables better control of emotional responses and promotes empathy.

Under social awareness (empathy), similar trends were observed. Mean values range from 3.55 to 3.67, and standard deviations remain relatively low (between 0.61 and 0.72), indicating consistent agreement among respondents. These findings suggest that the majority of participants are empathetic they can recognize emotional cues in others, understand others' emotional states during conflicts, and adjust their behavior accordingly. This supports the notion that emotional intelligence plays a significant role in facilitating effective counselling services and dispute mediation in educational institutions.

Regarding the machine learning dimension of artificial intelligence, the mean scores range from 3.40 to 3.48, with slightly higher standard deviations (between 0.75 and 0.81). Although still above the neutral point, these scores reflect a slightly lower level of agreement compared to the emotional intelligence indicators. The responses suggest that while respondents acknowledge the usefulness of machine learning in analyzing data and improving over time, there may be varying levels of exposure

or confidence in such technologies. The standard deviations further suggest some variation in user experience or trust in the AI systems.

For the expert systems variable, the mean scores fall between 3.33 and 3.50, with standard deviations ranging from 0.74 to 0.83. These values reflect moderate agreement among respondents that AI tools in their institutions provide expert-level guidance, help resolve disputes, and offer trustworthy recommendations. However, the slightly lower mean scores and higher variability suggest that not all respondents are fully convinced about the accuracy or effectiveness of these systems, possibly due to limited integration, lack of training, or system inconsistencies.

Hypothesis One: There is no significant relationship between self-awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.

Table 2: Correlations Analysis showing the Relationship between Self-Awareness and Machine Learning

		Self-awareness	Machine learning
Self-awareness	Pearson Correlation	1	0.955**
	Sig. (2-tailed)		0.000
	N	300	300
Machine learning	Pearson Correlation	0.955**	1
	Sig. (2-tailed)	0.000	
	N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher's field survey/SPSS Result, (2025)

The table 2 revealed that the Pearson product moment correlation coefficient (r) = 0.955. This value is high, which indicate that a very strong relationship exists between self-awareness and machine learning. It also show that a positive relationship exist between the two variables due to the positive sign of the correlation coefficient. The positive relationship is established by the value (p -value) = 0.000 < 0.05 (level of significance) therefore a significant relationship exists between self-awareness and machine learning. Therefore, we reject the null hypothesis and came to a conclusions that a significant relationship exist between self-awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.

Hypothesis Two: There is no significant relationship between self-awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

Table 3: Correlations Analysis showing the Relationship between Self-Awareness and Expert systems

		Self-awareness	Expert systems
Self-awareness	Pearson Correlation	1	0.903**
	Sig. (2-tailed)		0.000
	N	300	300
Expert systems	Pearson Correlation	0.903**	1
	Sig. (2-tailed)	0.000	
	N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher's field survey/SPSS Result, (2025)

The table 3 revealed that the Pearson product moment correlation coefficient (r) = 0.903. This value is high, which indicate that a very strong relationship exists between self-awareness and expert systems. It also show that a positive relationship exist between the two variables due to the positive sign of the correlation coefficient. The positive relationship is established by the value (p -value) = 0.000 < 0.05 (level of significance) therefore a significant relationship exists between self-awareness and expert systems. Therefore, we rejects the null hypothesis and came to a conclusions that a significant relationship exist between self-awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

Hypothesis Three: There is no significant relationship between social awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.

Table 4: Correlations Analysis showing the relationship between Social awareness and machine learning

		Social awareness	Machine learning
Social awareness	Pearson Correlation	1	0.950**
	Sig. (2-tailed)		0.000
	N	300	300
Machine learning	Pearson Correlation	0.950**	1
	Sig. (2-tailed)	0.000	
	N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher's field survey/SPSS Result, (2025)

The table 4 revealed that the Pearson product moment correlation coefficient (r) = 0.950. This value is high, which indicate that a very strong relationship exists between social awareness and machine learning. It also show that a positive relationship exist between the two variables due to the positive sign of the correlation coefficient. The positive relationship is established by the value (p -value) = 0.000 < 0.05 (level of significance) therefore a significant relationship exists between social awareness and machine learning. Therefore, we rejects the null hypothesis and came to a conclusions that a significant relationship exist between social awareness and machine learning in dispute resolution and counselling in tertiary education institutions in Rivers State.

Hypothesis Four: There is no significant relationship between social awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

Table 5: Correlations Analysis showing the Relationship between Social Awareness and Expert Systems

		Social awareness	Expert systems
Social awareness	Pearson Correlation	1	0.871**
	Sig. (2-tailed)		0.000
	N	300	300
Expert systems	Pearson Correlation	0.871**	1
	Sig. (2-tailed)	0.000	
	N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher's field survey/SPSS Result, (2025)

The table 5 revealed that the Pearson product moment correlation coefficient (r) = 0.871. This value is high, which indicate that a very strong relationship exists between social awareness and expert systems. It also show that a positive relationship exist between the two variables due to the positive sign of the correlation coefficient. The positive relationship is established at value (p -value) = 0.000 < 0.05 (level of significance) therefore a significant relationship exists between social awareness and expert systems. Therefore, we rejects the null hypothesis and came to a conclusions that a significant relationship exist between social awareness and expert systems in dispute resolution and counselling in tertiary education institutions in Rivers State.

Discussion of Findings

The result of the Pearson correlation analysis in Table 2 reveals a very strong positive relationship between self-awareness and machine learning (r = 0.955, p = 0.000 < 0.05). This indicates that as self-awareness increases among individuals involved in dispute resolution and counselling, the efficiency or relevance of machine learning systems in such processes also increases. The significance level confirms that this relationship is statistically meaningful. Thus, the null hypothesis is rejected, and it is concluded that a significant relationship exists between self-awareness and machine learning in the context studied. This finding aligns with the theoretical position of Mayer et al., (2016), who define self-awareness as an individual's ability to recognize and understand their emotions, which in turn shapes communication, decision-making, and interpersonal relationships. In the context of machine

learning, Kapoor and Picard (2018) asserted that emotional self-reporting and internal awareness data serve as crucial training inputs for AI algorithms, allowing these systems to make more personalized and empathetic decisions. Topal (2021) also emphasized that machine learning platforms designed to interpret emotional cues from self-aware users performed more effectively in student counseling applications. Likewise, Ajibade and Okafor (2019) found that emotional self-reporting enhanced AI counselling platforms' performance in dispute resolution. Therefore, the strong relationship identified in this study not only confirms existing empirical findings but also reaffirms the growing interdependence between human emotional intelligence and AI capabilities in tertiary education conflict management systems.

As shown in Table 3, the Pearson correlation coefficient ($r = 0.903$, $p = 0.000 < 0.05$) indicates a very strong positive and statistically significant relationship between self-awareness and expert systems. The high correlation suggests that an increase in self-awareness among staff and students directly influences the utility and performance of expert systems in conflict resolution. Goleman (2015) opined that individuals with high self-awareness tend to use logical reasoning rather than emotional outbursts in conflict situations, a behavior that can be modeled in AI expert systems for counselling. Similarly, Norman (2017) averred that integrating emotional regulation data into expert systems significantly improves their context sensitivity. This result is strongly supported by Chukwu and Ibezim (2018), who found that expert systems programmed with self-regulation behaviors improved the effectiveness of university counseling systems. Mohammed and Yusuf (2020) similarly reported that expert systems enriched with emotionally intelligent data provided more accurate and personalized conflict resolution solutions. Hence, the findings validate existing literature, demonstrating that expert systems are more effective when they are informed by or trained using data generated from emotionally intelligent, self-aware individuals.

Table 4 reveals a Pearson correlation value of $r = 0.950$, with a significance level of $p = 0.000 < 0.05$. This indicates a strong, positive, and statistically significant relationship between social awareness (empathy) and machine learning. As empathy increases among users, the usefulness and adaptability of machine learning in conflict resolution also increases. Mayer et al. (2016) emphasized that social awareness, which includes the capacity to recognize others' emotions and perspectives, is central to conflict resolution. Picard (2016) similarly asserted that machine learning algorithms trained with empathetic interaction data improve their predictive accuracy and emotional appropriateness during human-computer interaction. Empirical evidence by Oluwatayo and Ahmed (2020) revealed that machine learning platforms trained using empathy-related data responded more accurately and humanely in campus-based counselling situations. Ezenwa and Obasi (2019) also observed that incorporating social cues into AI models used in dispute management helped improve student trust in these systems. Therefore, the current study supports the view that machine learning systems perform better in counselling environments when they are informed by socially aware data, especially empathy-related feedback.

According to Table 5, the Pearson correlation coefficient stands at $r = 0.871$, with a p-value of 0.000, which is below the 0.05 level of significance. This indicates a strong and statistically significant positive relationship between social awareness and expert systems. The interpretation suggests that higher levels of empathy among institutional actors are linked to the more effective use and relevance of expert systems in conflict resolution and counselling. This outcome is in harmony with the assertions of Goleman (2015), who stressed that empathy builds trust and improves interpersonal outcomes, a quality that can be encoded into rule-based expert systems. Norman (2017) also emphasized that socially aware interaction patterns help expert systems perform better in emotionally sensitive domains like counselling. Supporting studies include Chinedu and Anazodo (2021), who found that expert systems designed with empathy-based logic improved user satisfaction and dispute outcomes in Nigerian universities. Similarly, Oloyede and Johnson (2022) observed that expert systems embedded with socially intelligent responses significantly reduced escalated conflicts by offering timely and sensitive interventions.

Conclusion

This study investigated the relationship between emotional intelligence and artificial intelligence in dispute resolution and counselling in tertiary education institutions in Rivers State, with a focus on the dimensions of emotional intelligence self-awareness and social awareness and the technological components of artificial intelligence machine learning and expert systems. The findings revealed that there is a strong and statistically significant relationship between emotional intelligence and artificial intelligence in the effective handling of conflicts and provision of counseling services within tertiary institutions. The results showed that self-awareness plays a crucial role in enhancing the adaptability and relevance of machine learning systems in dispute resolution, while social awareness (empathy) significantly improves the responsiveness of both machine learning tools and expert systems. The study confirmed that emotionally intelligent individuals are better able to interact with and guide the use of AI-based tools in resolving conflicts, offering support, and making decisions in emotionally sensitive contexts. This supports the assertion that artificial intelligence in education and counselling is more effective when it operates within emotionally informed frameworks. These findings are consistent with the theoretical underpinnings of Mayer, Salovey, and Caruso's emotional intelligence model and the Human-Computer Interaction theory, which emphasize the synergy between human emotion and machine adaptability.

Recommendations

Based on these findings, the following recommendations are proposed to improve dispute resolution and counselling in tertiary education institutions in Rivers State:

1. Emotional intelligence training should be institutionalized as part of continuous professional development for staff, especially counsellors and administrators. Enhancing self-awareness and empathy among institutional personnel will enable them to manage student disputes more effectively and use AI tools more efficiently.
2. Tertiary institutions should invest in AI systems designed with emotional intelligence parameters, such as machine learning models trained on emotionally rich data and expert systems capable of responding empathetically to users. These systems should support human counsellors, not replace them, offering data-driven insights that improve counseling outcomes.
3. There is a need to adopt a hybrid human-AI counselling model that blends the strengths of human emotional understanding with the speed, scalability, and analytical power of artificial intelligence. This approach will lead to a more holistic and responsive dispute resolution framework in institutions.
4. Institutions should establish interdisciplinary research units to support the design, local development, and monitoring of AI tools for emotional and academic counselling. Such units should bring together expertise from psychology, computer science, guidance and counseling, and education to develop culturally relevant and emotionally responsive technologies suited to the Nigerian context.

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