JOURNAL OF COMMUNICATION, LANGUAGE AND CULTURE

Social Media Sentiment Analysis of Intangible Assets in SME Success: The Role of Connection, Ethical Principles, and Partnerships

Kyra Law Ley Sy[1]*, Jason J Turner[2], Ponco Budi Sulistyo[3], Angga Ranggana Putra[4], Fauzi Adi Rafrastara[5]

[1]Faculty of Management, Multimedia University, Cyberjaya, Selangor, Malaysia
[2]Strategic Research Institute, Asia Pacific University of Technology & Innovation, Kuala Lumpur, Malaysia
[3]Faculty of Communication Science, Universitas Mercu Buana, Jakarta, Indonesia
[4] Department of Economics, Accounting, and Management, Luther College, Decorah, Iowa, United States
[5] Department of Informatics, Faculty of Computer Science, Universitas Dian Nuswantoro, Semarang Indonesia

*Corresponding author: kyralaw@mmu.edu.my; ORCID iD: 0000-0001-7034-5002

ABSTRACT

Small and Medium Enterprises (SMEs) have been the subject of various practitioner and academic research to better understand the underlying reasons for success and failure. In the Malaysian context, focusing on non-financial factors, three key themes emerge that are associated with SME success: connections, ethical principles, and partnerships. This study explores their individual and collective roles in SME success by capturing real-time perceptions from identified stakeholders through sentiment analysis of social media comments. Based on a curated sample of 58 comments from the *Entrepreneurship and Startups in Malaysia* Facebook group, the research integrated Natural Language Processing (NLP) models to detect expressions such as sarcasm and irony, along with manual thematic validation. This study revealed distinctive sentiment patterns among SMEs, with positive sentiment concentrated in themes related to employee reliability and intrinsic motivation, the integration of ethics into everyday operations and systems, and collaboration with complementary partnerships. This study demonstrated the strength of sentiment analysis of organic digital communications as a means of scaling, unobtrusively, and continuously diagnosing the health of an SME's vital intangible ecosystem. The resulting framework proactively monitors and fosters relational pillars, enabling a shift from intuitive management to evidence-based interventions.

Keywords: SME success, sentiment analysis, non-financial factors, social media analytics, intangible ecosystem

Received: 29 January 2026, **Accepted: 7** May 2026, **Published:** 30 July 2026

© Universiti Telekom Sdn Bhd. This article is licensed under
Creative Commons BY-NC-ND 4.0 International License.

1.0 Introduction

Small and Medium Enterprises (SMEs) are considered the cornerstone of the global economy (Bilali, 2022), and as a collective, they face several challenges in the pursuit of sustained success. Previous research has tended to focus on financial themes; however, there is a growing body of literature that focuses on the relationship between intangible, relational factors, such as people's connections, principles, and strategic partnerships, and SME success (Selma, 2021). Unlike multinational corporations (MNCs), SMEs arguably lack the necessary resources for sophisticated stakeholder analytics (Jalali et al., 2024), with leaders limited in their ability to measure the 'sentiment' within the organisational ecosystem, that is, the collective attitudes and emotions of employees, customers, and partners. Individually and collectively, this study explores how these intangible, relational factors impact SMEs success in Malaysia, focusing on two specific research questions. First, what are the sentiment patterns across the connections, principles, and partnerships that distinguish high-growth SMEs from struggling SMEs in entrepreneurial discourse? Second, how can these patterns serve as early warning indicators of weaknesses in SME relational capital?

Having identified a gap in the existing literature, this research attempts to bridge the gap in sentiment analysis as an indicative tool, offering real-time, authentic insights into different stakeholder perceptions (El Barachi et al., 2021), which consolidates the literature in terms of SME success and the role of people's connections, principles, and strategic partnerships, while advancing research in the areas of sentiment patterns and their relationship with entrepreneurial discourse.

2.0 Literature Review

2.1 SME Growth Determinants

Over the last two decades, academic discourse on SME success has evolved from a focus on financial and operational dimensions to a more comprehensive framework that reflects the critical role of intangible assets (Johari et al., 2021). The basic principle of SME growth is that it is multidimensional and influenced by entrepreneurs, firm-specific factors and strategic decisions (Mathew & John, 2024). Previous studies have emphasised tangible factors, including access to capital, market positioning, and operational efficiencies. However, recent studies have established that these traditional issues are insufficient to account for the variance in SME performance and to explain the resource profiles that have led to SME growth and success (Abubakari et al., 2022). Social capital, which includes networks, relationships, and cooperative agreements, has been shown to be a significant predictor of venture survival and growth (Chowdhary et al., 2025). Relational and cultural capital dimensions support SME sustainability (Baah et al., 2023). Consequently, there is a general perception that financial resources and technical know-how are the most important factors in the equation of success (Mishra & Aithal, 2023).

Despite having few resources in a cutthroat market, SMEs must prioritise strategic alliances, ethical positioning, and high-quality workforce. According to Paauwe and Van De Voorde (2025), the relationships between individuals are regarded as crucial differentiators in human resource quality time. This is corroborated by Davis (2022), who discovered that individual employees' attitudes and sentiments have a disproportionate impact on performance outcomes and that the role of employee passion and emotional engagement is less institutionalised in an SME context. SMEs may be more susceptible to key-person dependencies, have less capacity for formal HR systems, and rely more on cultural fit than structured hiring, among other HR issues. Workforce sentiment is crucial because informal people management in SMEs may involve a greater reliance on cultural fit for agility, but it also carries the risk of inconsistency (Omowole et al., 2024).

SMEs' ethical decision-making operates within a distinctive moral landscape in which founder values directly shape stakeholder experiences, and reputation development occurs through proximate relationships (Daradkeh, 2023; Okechukwu et al., 2024). Hence, ethical values, cultural coherence, and organizational integrity have increasingly gained recognition as research fields at the crossroads of entrepreneurship studies. This contiguity confers transparency and vulnerability, whereas ethical alignment creates trust and loyalty more easily than in large corporations. Consequently, inconsistencies in value can erode stakeholder confidence rapidly. SMEs try to differentiate themselves in competitive markets where prices and product features are not easily distinguishable (Fluhrer & Brahm, 2023).

Partnership effectiveness represents strategic alliances that give SMEs access to resources, capabilities, and markets that would otherwise be unreachable (Tijani et al., 2021). SMEs that leverage collaborative partnerships experience far higher growth rates than isolated competitors (Vătămănescu et al., 2022). However, success in a partnership is determined by relational factors—issues of trust, quality of communication, and goal congruence—rather than the terms of contracts (Ali et al., 2022). Nevertheless, partnership failure rates remain high, with misaligned expectations and deterioration in relationship quality (Grimm & Reinecke, 2024). In other words, while partnerships bring considerable value, SMEs often lack the means to track partnership health and identify misalignments well in advance of a breakdown in stakeholder relationships (Selvakumar et al., 2025).

2.2 Traditional Assessment Limitations

Although literature acknowledges the importance of people, principles, and partnerships, methodological limitations are usually cited in the context of measuring and monitoring them (Jin & Liu, 2025). Temporal issues, such as sampling limitations and response bias, limit their usefulness for real-time decision-making (Khan, 2024). Further intensifying the situation are SMEs' resource constraints, which repeatedly prevent frequent or holistic stakeholder assessments, leading to episodic assessments of organisational health indicators (Jones et al., 2021).

Organisational conditions have changed significantly over the past 20 years, characterised by intergenerational work, workplaces, and digital transformation. Gaining access to employee sentiment in this disruptive environment is arguably problematic, particularly when organisations engage with traditional forms of customer evaluation, with response rates often lower and skewed towards extreme experiences (Price et al., 2022). Evaluations of partnerships, if conducted at all, tend to occur only at each formal review cycle rather than continuously, which can miss the initial stages of deterioration in collaborative quality (Moore et al., 2024). Temporal delays between when sentiment is created and when data collection, analysis, and intervention occur create blind spots in decision-making (George & Baskar, 2024) and point towards the need for a more creative approach to capture employee attitudes.

Explicit attitudes consciously extracted through traditional means may not capture employee sentiments revealed through spontaneous communication (Wang et al., 2024). More traditional approaches may engender socially acceptable answers rather than report true feelings. This is especially the case with social desirability bias in SMEs, where proximity among stakeholders and founders raises concerns regarding candour and confidentiality (Nakpodia et al., 2025). The potential results associated with more traditional approaches to capturing employee feedback are an information environment in which SME leaders receive filtered, delayed information that is not representative of the relational issues that matter to them. Robust natural language processing (NLP) models open new avenues for overcoming the limitations of earlier sentiment analysis tools. Sarcasm, irony, and subtle emotional expressions are prevalent in casual digital communication, which is better understood by contemporary transformer-based models because of their increased contextual awareness (Bodige et al., 2025; Dubey et al., 2025). This counteracts a major flaw in conventional methods, which could overlook an employee's genuine feelings, particularly when contextual or figurative language is used to provide a more authentic perspective on stakeholder perceptions.

3.0 Methods

3.1 Research Design

This study employs a qualitative research design that incorporates thematic analysis to examine stakeholders' perceptions of connections, ethical principles, and partnerships as reflected on a designated social media platform, as well as their individual and collective relationships with SME success. Naturally occurring digital communication, which provides more authenticity and scale, was the main data source for this research. More specifically, this study analyses textual data from Facebook discussion groups, where SME stakeholders, such as partners, employees, customers, advisors, and entrepreneurs, discuss business challenges, practices, and experiences. The Facebook group was chosen because it is an active and policy-relevant SME community in Malaysia. The findings of this study are proposed to be exploratory rather than explanatory using statistical methods.

3.2 Data Source and Sampling Strategy

Facebook discussion groups devoted to entrepreneurship, small business management, and industry-specific SME communities provided information (Mtjilibe et al., 2024). The participants voluntarily shared their experiences, lessons learned, triumphs, and failures. Facebook was selected as the data-sourcing platform for two reasons: first, it offers the chance to collect opinions from a range of demographic groups within active SME-related communities; and second, it offers conversational depth that is not possible on shorter-format platforms such as X (formerly known as Twitter) (Theodorakopoulos & Theodoropoulou, 2024).

To ensure the quality and relevance of the data, this sampling strategy employed purposive selection of Facebook groups based on specific criteria. The target groups specifically focused on topics related to small businesses, entrepreneurship, and SME management; frequent posting demonstrated active engagement; diverse stakeholder representation, rather than single-role memberships; and a content history that permits temporal analysis. Over 100 comments from a single, targeted source, the *Entrepreneurship and Startups in Malaysia* Facebook group, were gathered to initiate data collection. This dataset was reduced to 58 comments through a filtering process to ensure comment quality and best fit the research questions. The conflicting demands of finding patterns and conducting careful, context-aware analyses were balanced by this carefully chosen sample.

In accordance with Facebook's Terms of Service and Application Programming Interface (API) usage policies, data extraction adhered to ethical protocols, which included analysing only public group content from members who had reasonable expectations that their discussions may be observed and excluding any personally identifiable information from the reporting (Van der Vlist et al., 2022). Facebook's Graph API and automated web scraping tools were used to collect comments. Permissions were granted for a predetermined period to capture both regular conversations and reactions to external events that might influence sentiment expression.

3.3 Sentiment Analysis Methodology

Sentiment analysis is based on sentiment classification or natural language processing (NLP) techniques that have demonstrated efficacy in social media texts (Bashiri & Naderi, 2024; Durairaj & Chinnalagu, 2021). In this study, automated sentiment classification and manual validation were balanced, with comments first pre-processed in accordance with best practices to eliminate unnecessary content, correct mistakes, and standardise text formatting (Cyril et al., 2021). To improve NLP transparency, several steps should be considered (Saleem & Kumarapathirage, 2023).

1. All social media comments were cleaned, that is, special characters, emojis, and extra whitespace were removed.
2. Model selection was based on the balance between the precision and recall of the target sentiment.
3. The results indicated reliable classification for the exploratory purpose of this study.

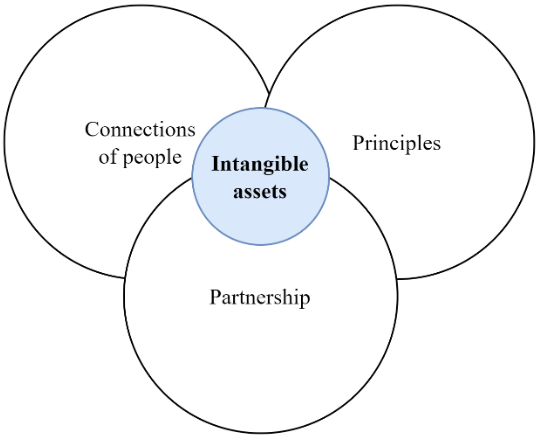
This study employed transformer-based NLP to demonstrate its performance in capturing nuanced emotional expressions for detecting sentiment and sarcasm. Given the mostly informal tone of entrepreneurial conversations on Facebook, this study prioritises context-aware models. Each comment was scored across several sentiment dimensions, including intensity, emotion categories (*such as joy, trust, fear, anger, and sadness*), and overall polarity (*positive, negative, and neutral*) (Doğan et al., 2025). Sentiment analysis was used instead of polarity classification to identify topics related to individuals, values, and collaborations in comments. This allowed for a disaggregated assessment of sentiment patterns across the three dimensions.

Some comments were manually coded by raters who independently categorised the sentiment and thematic content to improve validity. According to Belur et al. (2021), coding consistency was evaluated using inter-rater reliability statistics, and differences were used to improve the automated classification algorithms. For large-scale pattern detection, this hybrid approach uses the computational effectiveness and contextual sophistication of sophisticated NLP models while preserving qualitative depth and comprehension (Bhattacharya et al., 2024; Ren, 2024). The resulting dataset connects sentiment indicators with thematic categories, making it possible to systematically analyse how stakeholders' perceptions differ across the dimensions of partnerships, connections among people, and principles. This was done to discover patterns that may be related to reported business outcomes or issues discussed within the identified Facebook communities.

4.0 Findings and Discussion

Figure 1

The Triad of Intangible Assets for SMEs' Success



Note: This figure was developed for this research.

Table 1

Sentiment Polarity Distribution by Theme (n=58 comments)

Theme	Positive (%)	Negative (%)	Neutral (%)
Connections among People	19 (63.3%)	8 (26.7%)	3 (10.0%)
Principles	16 (66.7%)	5 (20.8%)	3 (12.5%)
Partnerships	22 (64.7%)	7 (20.6%)	5 (14.7%)

Note. Comments frequently mentioned multiple themes; thus, column totals exceed n=58.

Positive sentiment ranged from 63.3% (connections) to 66.7% (principles). The proportion of negative sentiment was higher for connections (26.7%) than for principles (20.8%) and partnerships (20.6%). This discrepancy aligns with qualitative findings that employee reliability and dependability are persistent issues.

4.1 Theme 1 – Connections among People

Sentiment analysis indicates that internal people quality and external networks are meaningful for SME success (Gutierrez et al., 2025). Entrepreneurs frequently present their expansion as dependent on acquiring suitable human capital, emphasising attributes that go beyond technical proficiency. Words such as *reliable, good, great, or hungry* are frequently used to describe ideal co-workers. Dependability is crucial in an SME, as a solo entrepreneur's failure can affect the company's success. This theme is one of hard-won experiences, with recommendations that entrepreneurs focus on dependability as a direct reaction to previous issues that were brought about by uneven workers' performance.

Additionally, the analysis shows that entrepreneurs have realistic self-awareness. Terms such as *I need a great marketing executive or partner* indicate a strategic need to hire specialised expertise and awareness of one's capability gaps. Growth requires capabilities, as the request for a *partner* makes it clearer that entrepreneurs can take charge and work on their own. Staff appreciation of intrinsic motivation reflects a need for independence. Resource-constrained SMEs may not be able to provide structured corporate incentives. Employees' natural drive and ambition are crucial traits, whereby this notion is supported by the word *hungry* to describe a salesforce.

Additionally, this dimension shows that entrepreneurship has strong expressive considerations. Statements such as *working alone are exhausting,* may refer to a psychological responsibility resulting from sole accountability. This emphasises the significance of the *people* dimension, as it is an entrepreneur's interest and the company's long-term feasibility. The need for assistance also extends to mentoring, with vulnerable displays of humility almost defying the myth of individuality. The analysis also shows that entrepreneurs view clients as underlying components of human ecosystems. Customer quality, dependability, and loyalty are valued to reflect the crucial connections in SMEs that determine the course of a company's growth.

The connection among people is aligned with Davis (2022), who stated that individuals' attitudes may disproportionately affect SME performance due to less institutional human resource systems. Similarly, informal people management relies on cultural fitness and dependability, which is consistent with past research by Omowole et al.'s (2024) findings. Nonetheless, this study extends prior work to capture entrepreneurs' articulation of desired traits to offer a more organic and sentiment-driven approach.

4.2 Theme 2 – Principles

This dimension encompasses the moral principles and operational standards that influence the trust of stakeholders. A consistent and genuine ethical vocabulary is abundant in language. Terms such as *trust, honesty, integrity,* and *honour* are described as definite and lived commitments to business feasibility. This emphasis on trust is one of the few distinctive aspects of competitive advantage, as there may be a lack of brand equity and proximity of stakeholders in SME settings. The concept of trust is uniquely dense in functioning as both a resource and an operational requirement. A lack of trust may lead to tension such as reluctant clients, chary workers, and partners who do not trust each other. Nevertheless, a surplus of trust may result in increased efficiency and goodwill among stakeholders. This sentiment demonstrates a mature understanding that a single act of betrayal can shatter trust.

A strong emphasis on systemisation runs concurrently with ethical values. Inquiries like *how can the system help your company?* demonstrated a practical drive to lessen a founder's dependence on instinct and shift towards operations that are process oriented. This illustrates a crucial process whereby systems incorporate values into repeatable actions that ensure stakeholder experience and quality regardless of who completes the task. The interaction between systems and ethics is further demonstrated in actual business-level decisions. For instance, *EZ payment plans* are a dedication to accessibility and customer-centeredness. Similarly, a transparency principle is demonstrated by an educational approach to sales, *Education about how to gain the profits,* which presents the entrepreneur as a reliable advisor. The operational principle of consistency serves as the foundation for systemisation. The references to *good customer service* and *repeat purchases* suggest that dependable competence is valuable to the organisation. SMEs whose expansion depends on positive word-of-mouth, reputation and sustainable revenue are built on performance in keeping with commitments.

Finally, sentiment analysis revealed a nuanced set of entrepreneurial values. Principles are strategic assets rather than constraints. Successful SME leaders instinctively know that abstract values must be translated into concrete, day-to-day processes. This is a *systems-plus-ethics* integration to foster competitive advantage through trustworthiness and reliability, a form of differentiation. The findings are aligned with Daradkeh (2023), who stated that an entrepreneur's values may precisely shape stakeholders' experiences.

4.3 Theme 3 – Partnerships

Sentiment analysis indicates that strategic partnerships are an important pillar of SME success, as entrepreneurs consistently associate growth with cultivating relationships and networking (Mariam, 2025). Indeed, this theme is rather persistent than occasional, supported by the frequent use of terms such as *connection, network, referral,* and *word of mouth* in the Facebook discussions. This again shows that networking is not a peripheral activity but an essential business strategy. Entrepreneurs explicitly declare that networking is a strong mechanism for accelerated problem-solving, as reflected in statements such as *connection with the right people can move you places* and *circle or network is shortcut solving.* In addition, this metaphorical expression of *shortcut* demonstrates a strategic understanding that relationships help bypass conventional hurdles arising from a lack of resources, inability to access the market, and the need to acquire knowledge, which is aligned with Vătămănescu et al. (2022).

The analysis distinguishes between various network types, each serving a different strategic purpose. Digital networks are a modern adaptation that allows SMEs to develop audience relationships on a large scale with minimal investments. Terms such as *followers on my TikTok, Instagram & Facebook* refer to platforms that serve as both a customer base and a channel of communication to provide social proof and optimism reflection, aligned with existing networking literature (Chowdhary et al., 2025; Mariam, 2025). Alongside this, the focus on creating *partnerships with complementary businesses* underscores a shift away from transactional exchanges towards synergistic collaborations. Alliances make complementary contributions, customer bases, and/or capabilities to create mutual value that cannot be created independently. The sentiment may reflect both excitement about collaboration and pragmatic recognition that collaboration is necessary to overcome resource constraints, framing partnerships as strategic assets.

The terms *referral* and *word of mouth* underline the irreplaceable role of reputation-based growth. Unlike large organisations, SMEs arguably depend disproportionately on trust-based endorsements for customer acquisition and credibility. For entrepreneurs, referrals are not a happy byproduct but rather a strategic necessity. The magnitude of luck was dodged to in the phrase *Network and the equation of luck* which underlines the need for fate to support networking efforts. This reflects a sophisticated understanding; network building is intentional, and the opportunities that arise are often unpredictable. Therefore, entrepreneurs conceptualise luck not as a random chance but as a probability that increases with the size and quality of one's network, evidencing strategic patience in long-term relational investment.

In summary, this research reveals distinctive and measurable patterns across the three intangible asset dimensions to differentiate entrepreneurial discourse with three patterns: connections among people, principles, and partnerships. The findings also support the proportion of sentiment analysis derived from social media discourse, which functions as a proximal indicator.

5.0 Conclusion

This study provides evidence that social media sentiment analysis offers a valid and scalable method for diagnosing the vitality of SME's critical intangible assets. The findings support the connectivity among people, ethical principles, and strategic partnerships, which extend beyond the theoretical and is represented in the free, spontaneous text of respondents. Indeed, the analysis of organic Facebook discussions revealed distinct sentiment patterns: thriving SMEs are characterised by positive sentiment towards employee reliability and motivation, the lived integration of ethics into operational systems, and the synergistic value of strategic networks. Negative sentiment within these domains is a robust early warning signal of deteriorating relational capital, often well in advance of more conventional signs of business distress.

The key contribution of this study is its methodology. The findings reveal that sentiment analysis may overcome the pervasive limitations of traditional assessment tools, that is, infrequent surveys, social desirability bias, and temporal delays, as it offers continuous, unobtrusive, and bias-resistant insights, particularly when used with NLP models. This method enables SME entrepreneurs to shift away from managing relational ecosystems that are based on intuition or episodic feedback to an evidence-based proactive monitoring paradigm. For practitioners, the implications are clear: sustainable growth requires thoughtful cultivation and continuous assessment of three pillars: connections, principles, and partnerships. Entrepreneurs should foster a culture of dependable talent by embedding principles into everyday processes and decision-making and strategically building complementary partnerships.

However, a main limitation of this research lies in the small sample size (n=58 comments), which may restrict the statistical generalizability of the findings to a large group of SME communities in Malaysia. Compared to large-scale NLP studies that analyse a large sample size of social media posts and comments, this research focuses on deeper insights and contextual nuances. It may not fully capture the diverse experiences of all SME sectors or demographic groups.

Therefore, future research could expand upon the themes that emerged from this research and address the identified limitation in the sample size, which, although appropriate for this research, could be expanded upon in future studies to consider intergenerational differences and other demographic factors. Further research should be conducted to develop and validate user-friendly sentiment analysis tools that address the resource and expertise constraints of SMEs. A further area for future research would be to focus on longitudinal designs to determine the causal links between specific sentiment trajectories and hard financial performance metrics, thereby further solidifying the predictive power of this approach for investors. A final area for further research would be to expand the data sources into other platforms and languages to enhance the generalisability of the findings and consolidate the findings of this research, which offers a new lens through which to understand, measure, and ultimately strengthen the intangible foundations of SME success.

Acknowledgement

The authors would like to extend their sincere gratitude to the Faculty of Management at Multimedia University for providing a conducive research environment for this study. The authors are grateful to the administrators and members of the online entrepreneurship communities whose open discussions formed the essential data for this research. The authors also express their gratitude to the reviewers whose thoughtful comments strengthened this work.

Conflict of Interest

The authors have declared that no competing interests exist.

Author Contribution Statement

KLLS: Conceptualisation, Data Curation, Methodology, Validation, Writing Original Draft Preparation, Review & Editing; JJT: Validation, Review & Editing; PBS: Validation, Review & Editing; ARP: Validation, Review & Editing; FAS: Validation, Review & Editing.

Funding

This research received no external funding.

Ethics Statements

This research did not require IRB approval because of publicly available data or documents with no personal information.

Data Access Statement

Research data supporting this publication are available upon request to the corresponding author.

Author Biography

Kyra Law Ley Sy is an Assistant Professor at the Faculty of Management, Multimedia University, Cyberjaya, Selangor, Malaysia. Her research interests are entrepreneurship, management, and corporate social responsibility.

Jason Turner is a Professor of Human Capital. He holds several leadership positions, as well as external professorial and senior research posts. He is currently a Senior Research Fellow in the Strategic Research Institute at Asia Pacific University of Technology & Innovation, Kuala Lumpur, Malaysia.

Ponco Budi Sulistyo is an Associate Professor in the Faculty of Communication Science at Universitas Mercu Buana, Jakarta, Indonesia. He holds a PhD in communication, with a focus on media and audience studies. His research interests include digital media literacy, audience studies, and intercultural communication.

Angga Ranggana Putra is an Assistant Professor of Marketing and Management in the Department of Economics, Accounting, and Management at Luther College, Iowa, USA. He holds a PhD in consumer studies. His research interests are consumer well-being, sustainable consumption, and consumer culture.

Fauzi Adi Rafrastara is an Assistant Professor at Universitas Dian Nuswantoro, Central Java, Indonesia. He is currently a doctoral student in the Computer Science Doctoral Programme at Universitas Dian Nuswantoro. His research interests include artificial intelligence and information security.

References

Abubakari, A., Ofori, K. S., Boateng, H., N'Da, K., & Hinson, R. E. (2022). The effect of foreign market knowledge on SME export performance: A study of non-traditional SMEs in Ghana. *Global Knowledge, Memory and Communication, 71*(6/7), 546–563. https://doi.org/10.1108/gkmc-03-2021-0054

Ali, S., Abbasi, I. A., Mustafa, E. E., Wahid, F., & Huang, J. (2022). Practitioner's view of the success factors for software outsourcing partnership formation: An empirical exploration. *Empirical Software Engineering, 27*(2), 52–115. https://doi.org/10.1007/s10664-021-10044-y

Baah, C., Afum, E., Agyabeng-Mensah, Y., Dacosta, E., Opoku-Agyeman, D., & Nyame, C. (2023). Environmental orientation, relational capital and SMEs performance: Do religious, cultural and mimetic orientations matter in a Sub-Saharan African economy? *Benchmarking: An International Journal, 30*(1), 215–233. https://doi.org/10.1108/bij-05-2021-0299

Bashiri, H., & Naderi, H. (2024). Comprehensive review and comparative analysis of transformer models in sentiment analysis. *Knowledge and Information Systems, 66*(12), 7305–7361. https://doi.org/10.1007/s10115-024-02214-3

Belur, J., Tompson, L., Thornton, A., & Simon, M. (2021). Interrater reliability in systematic review methodology: Exploring variation in coder decision-making. *Sociological Methods & Research, 50*(2), 837–865. https://doi.org/10.1177/0049124118799372

Bhattacharya, P., Prasad, V. K., Verma, A., Gupta, D., Sapsomboon, A., Viriyasitavat, W., & Dhiman, G. (2024). Demystifying ChatGPT: An in-depth survey of OpenAI's robust large language models. *Archives of Computational Methods in Engineering, 31*(8), 4557–4600. https://doi.org/10.1007/s11831-024-10115-5

Bilali, J. B. (2022). Small/medium sized enterprises (SMEs) competitiveness: A global perspective competitiveness of small and medium-sized enterprises. *Journal of Enterprise and Business Intelligence, 2*(2), 109–119. https://doi.org/10.53759/5181/jebi202202012

Bodige, R., Akarapu, R., & Poladi, P. K. (2025). Transformer-based advances in sarcasm detection: A study of contextual models and methodologies. *Knowledge and Information Systems, 67*(9), 7399–7430. https://doi.org/10.1007/s10115-025-02469-4

Chowdhary, S., Selvakumar, P., Sangeetha, B., Sarvaani, V. V., Anute, N., & Sharma, M. (2025). The role of social capital in entrepreneurial development. In J. M. Nez-Falc, E. S. Nchez-Garc, & B. Marco-Lajara (Eds.), *Support networks for entrepreneurs: Social capital and strategic collaborations* (pp. 311–338). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-9836-4.ch013

Cyril, C. P. D., Beulah, J. R., Subramani, N., Mohan, P., Harshavardhan, A., & Sivabalaselvamani, D. (2021). An automated learning model for sentiment analysis and data classification of Twitter data using balanced CA-SVM. *Concurrent Engineering, 29*(4), 386–395. https://doi.org/10.1177/1063293x211031485

Daradkeh, M. (2023). Navigating the complexity of entrepreneurial ethics: A systematic review and future research agenda. *Sustainability, 15*(14), 11099. https://doi.org/10.3390/su151411099

Davis, E. J. (2022). *Effective employee engagement strategies of successful small business leaders and its impact on organizational performance: A multiple case study* [Doctoral dissertation, Northcentral University].

Doğan, B., Balcioglu, Y. S., & Elçi, M. (2025). Multidimensional sentiment analysis method on social media data: Comparison of emotions during and after the COVID-19 pandemic. *Kybernetes, 54*(4), 2414–2456. https://doi.org/10.1108/k-09-2023-1808

Dubey, P., Dubey, P., & Bokoro, P. N. (2025). Unpacking sarcasm: A contextual and transformer-based approach for improved detection. *Computers, 14*(3), 95. https://doi.org/10.3390/computers14030095

Durairaj, A. K., & Chinnalagu, A. (2021). Transformer based contextual model for sentiment analysis of customer reviews: A fine-tuned BERT. *International Journal of Advanced Computer Science and Applications, 12*(11), 474–480. https://doi.org/10.14569/ijacsa.2021.0121153

El Barachi, M., AlKhatib, M., Mathew, S., & Oroumchian, F. (2021). A novel sentiment analysis framework for monitoring the evolving public opinion in real-time: Case study on climate change. *Journal of Cleaner Production, 312*, 127820. https://doi.org/10.1016/j.jclepro.2021.127820

Fluhrer, P., & Brahm, T. (2023). Positioning in SMEs: Entrepreneurs' perceptions and strategies. *Journal of Research in Marketing and Entrepreneurship, 25*(3), 431–454. https://doi.org/10.1108/jrme-09-2021-0120

George, A. S., & Baskar, T. (2024). Leveraging big data and sentiment analysis for actionable insights: A review of data mining approaches for social media. *Partners Universal International Innovation Journal, 2*(4), 39–59. https://doi.org/10.5281/zenodo.13623776

Grimm, J., & Reinecke, J. (2024). Collaborating on the edge of failure: Frame alignment across multiple interaction arenas in multi-stakeholder partnerships. *Academy of Management Journal, 67*(4), 956–990. https://doi.org/10.5465/amj.2021.0466

Gutierrez, A., Aguilar, J., Ortega, A., & Montoya, E. (2025). Sentiment analysis on social networks for defining innovation problems in organizations. *Technology in Society, 81*, 102804. https://doi.org/10.1016/j.techsoc.2024.102804

Jalali, A., Al Riyami, S. M., Razzak, M. R., & Suleiman Alqam, H. (2024). Linking extra-industry network and organization–stakeholder relationships to SMEs performance through absorptive capacity: Interaction effect of outsourcing big data analytics. *Business Process Management Journal, 30*(2), 411–434. https://doi.org/10.1108/bpmj-05-2023-0347

Jin, L., & Liu, M. (2025). Unlocking financial opportunities: The substantial alleviation of financing constraints on small and micro enterprises through digital inclusive finance. *Journal of the Knowledge Economy, 16*(1), 2283–2309. https://doi.org/10.1007/s13132-024-01863-7

Johari, N. H. B., Mohamad, N. E. A., Rahman, N. R. A., & Chin, O. (2021). Factoring tangible and intangible resources into the Small Medium Enterprise Resilient Index (SMERi): A novel contribution for SME sustainability. *Global Business & Management Research, 13*.

Jones, O. W., Gold, J., & Devins, D. (2021). SME productivity stakeholders: Getting in the right orbit. *International Journal of Productivity and Performance Management, 70*(2), 233–255. https://doi.org/10.1108/ijppm-06-2019-0274

Khan, M. M. (2024). Optimizing web surveys in research: Methodological considerations and validity aspects. *International Journal of Research and Scientific Innovation, 11*(4), 75–105. https://doi.org/10.51244/ijrsi.2024.1104007

Mariam, S. (2025). Exploring collaboration and partnerships: A qualitative study on strategic alliances and business networking for value creation. *Golden Ratio of Marketing and Applied Psychology of Business, 5*(2), 386–399. https://doi.org/10.52970/grmapb.v5i2.1170

Mathew, P. V., & John, A. (2024). Comprehensive insights into key personal factors shaping entrepreneurial success: A multi-dimensional analysis. *Innovatus: An Ivanian Journal of Economics and Business Studies*, 9–16. https://marivanioscollegejournals.com/index.php/innovatous/article/view/64

Mishra, K., & Aithal, P. S. (2023). Building ethical capital through human resource. *International Journal of Management, Technology, and Social Sciences, 8*(1), 1–15. https://doi.org/10.47992/ijmts.2581.6012.0251

Moore, R., Gimbert, B. G., & Becce, M. (2024). BELIEVE in collaboration: Effective evaluation partnerships for National Professional Development projects. *TESOL Journal, 15*(4), e856. https://doi.org/10.1002/tesj.856

Mtjilibe, T., Rameetse, E., Mgwenya, N., & Thango-Mabizela, B. (2024). *Exploring the challenges and opportunities of social media for organizational engagement in SMEs: A comprehensive systematic review* [Preprint]. Social Science Research Network. https://doi.org/10.20944/preprints202410.1438.v1

Nakpodia, F., Olan, F., Ogunyemi, T., & Hasan, A. (2026). Navigating the roadblocks: Exploring challenges in implementing corporate social responsibility (CSR) initiatives in a Sub-Saharan African economy's small and medium enterprises (SMEs). *European Business Review, 38*(1), 17–45. https://doi.org/10.1108/ebr-01-2024-0005

Naradda Gamage, S. K., Ekanayake, E. M. S., Abeyrathne, G. A. K. N. J., Prasanna, R. P. I. R., Jayasundara, J. M. S. B., & Rajapakshe, P. S. K. (2020). A review of global challenges and survival strategies of small and medium enterprises (SMEs). *Economies, 8*(4), 79. https://doi.org/10.3390/economies8040079

Okechukwu, N., & Agbai, E. P. (2024). Exploring the role of value orientation in small and medium-sized enterprise (SME) and entrepreneurial development in Nigeria. *Journal of the International Institute for African Scholars, 1*(1), 5–26.

Omowole, B. M., Olufemi-Philips, A. Q., Ofodile, O. C., Eyo-Udo, N. L., & Ewim, S. E. (2024). Conceptualizing agile business practices for enhancing SME resilience to economic shocks. *International Journal of Scholarly Research and Reviews, 5*(2), 070–088. https://doi.org/10.56781/ijsrr.2024.5.2.0049

Paauwe, J., & Van De Voorde, K. (2025). Bridging the research-practice gap in modern human resource management. *Human Resource Management Review, 35*(2), 101076. https://doi.org/10.1016/j.hrmr.2025.101076

Price, R. A., Quigley, D. D., Hargraves, J. L., Sorra, J., Becerra-Ornelas, A. U., Hays, R. D., Cleary, P. D., Brown, J., & Elliott, M. N. (2022). A systematic review of strategies to enhance response rates and representativeness of patient experience surveys. *Medical Care, 60*(12), 910–918. https://doi.org/10.1097/mlr.0000000000001784

Ren, M. (2024). Advancements and applications of large language models in natural language processing: A comprehensive review. *Applied and Computational Engineering, 97*(1), 55–63. https://doi.org/10.54254/2755-2721/97/20241406

Saleem, S., & Kumarapathirage, S. (2023, June). AutoNLP: A framework for automated model selection in natural language processing. In *2023 18th Iberian Conference on Information Systems and Technologies (CISTI)* (pp. 1–4). https://doi.org/10.23919/cisti58278.2023.10212030

Selma, H. K. (2021). Ratings for innovative SMEs and start-ups and intangible capital: Literature review and proposal of a new approach. *Studies of Applied Economics, 38*(4). https://doi.org/10.25115/eea.v38i4.4014

Selvakumar, P., Aradhya, S. G. B., Anute, N., Devi, S., Sharma, M., & Vaissnave, V. (2025). Strategic collaborations and partnerships in entrepreneurship. In J. M. Nez-Falc, E. S. Nchez-Garc, & B. Marco-Lajara (Eds.), *Support networks for entrepreneurs: Social capital and strategic collaborations* (pp. 203–232). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-9836-4.ch009

Theodorakopoulos, L., & Theodoropoulou, A. (2024). Leveraging big data analytics for understanding consumer behavior in digital marketing: A systematic review. *Human Behavior and Emerging Technologies, 2024*(1), 3641502. https://doi.org/10.1155/2024/3641502

Tijani, A. A., Osagie, R. O., & Afolabi, K. B. (2021). Effect of strategic alliance and partnership on the survival of MSMEs post COVID-19 pandemic. *Economic & Managerial Spectrum, 15*(2), 126–137. https://doi.org/10.26552/ems.2021.2.126-137

Van der Vlist, F. N., Helmond, A., Burkhardt, M., & Seitz, T. (2022). API governance: The case of Facebook's evolution. *Social Media + Society, 8*(2). https://doi.org/10.1177/20563051221086228

Vătămănescu, E. M., Mitan, A., Andrei, A. G., & Ghigiu, A. M. (2022). Linking coopetition benefits and innovative performance within small and medium-sized enterprises networks: A strategic approach on knowledge sharing and direct collaboration. *Kybernetes, 51*(7), 2193–2214. https://doi.org/10.1108/k-11-2020-0731

Wang, B., Zhang, R., Xue, B., Zhao, Y., Yang, L., & Liang, H. (2024). Automatically distinguishing people's explicit and implicit attitude bias by bridging psychological measurements with sentiment analysis on large corpora. *Applied Sciences, 14*(10), 4191. https://doi.org/10.3390/app14104191