

Effectiveness of Instagram Influencers in Influencing Consumer Purchasing Behavior

P.S. Venkateswaran^{1,*}, Latha Thammareddi²

¹Department of Management, PSNA College of Engineering and Technology, Dindigul, Tamil Nadu, India.

²Department of Management Information System, DXC Technology, Dallas, Texas, United States of America.
venkatespsna07@psnacet.edu.in¹, lathathammareddi@ieee.org²,

Abstract: The focus of the study is to find out the effectiveness of Instagram influencers in influencing consumer purchasing behavior. Instagram has evolved as a key platform for influencer marketing in the present digital marketing environment. It offers a one-of-a-kind channel through which brands may connect with the audience they are trying to reach. The research makes use of a mixed-methods methodology, which combines qualitative insights gained from in-depth interviews with both consumers and influencers with quantitative analysis of data collected from data collected from consumers. This study investigates the function of Instagram as a dynamic marketing platform, taking into consideration the ever-changing nature of the connections between influencers and marketers. This research makes a contribution to the existing body of knowledge by providing marketers with practical insights that might help them optimise their influencer marketing strategy on Instagram. The importance of understanding the impact of Instagram influencers in the context of modern marketing cannot be overstated, and the purpose of this study is to provide insightful information that can be useful to both academics and professionals working in the sector.

Keywords: Instagram Influencers; Influencer Marketing; Consumer Behavior; Social Media Marketing; Product Purchases; Digital Marketing Strategy; Influencing Consumer Purchasing.

Received on: 12/12/2022, **Revised on:** 15/02/2023, **Accepted on:** 27/04/2023, **Published on:** 04/12/2023

Cite as: P.S. Venkateswaran and L. Thammareddi, "Effectiveness of Instagram Influencers in Influencing Consumer Purchasing Behavior," *FMDB Transactions on Sustainable Social Sciences Letters*, vol. 1, no. 2, pp. 85–95, 2023.

Copyright © 2023 P.S. Venkateswaran and L. Thammareddi, licensed to Fernando Martins De Bulhão (FMDB) Publishing Company. This is an open access article distributed under [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows unlimited use, distribution, and reproduction in any medium with proper attribution.

1. Introduction

Influencer marketing strategically involves partnering with influential individuals or notable figures in a specific industry or niche to promote products, services, or brands. These influencers typically boast a substantial and engaged following across various social media platforms, thereby exerting considerable influence over the purchasing decisions of their audience. The collaborative process often includes influencers generating content that highlights or endorses the promoted item, leveraging their credibility and sway to extend reach to a broader audience [18].

This contemporary approach stands in contrast to traditional marketing methods. While traditional marketing relies on more conventional channels such as television, radio, and print media, influencer marketing capitalizes on the digital landscape and the persuasive power of individuals with significant online presence [19]. Unlike traditional marketing's one-to-many communication, influencer marketing often fosters a more personalized, one-to-one connection with consumers [20].

In the realm of marketing strategy, influencer marketing is strategically employed by companies targeting key individuals, referred to as influencers, who align with the brand's values and actively advocate for the company to engage potential

*Corresponding author.

customers [9]. These influencers play a crucial role by not only disseminating new information but also wielding the power to shape the attitudes and behaviors of their audience, aiding potential customers in making informed purchase decisions [16]. Trustworthiness is paramount for an influencer, as any lapse in credibility can jeopardize the brand's integrity [1].

With the growth of influencer marketing, regulatory measures have emerged to ensure transparency in partnerships [21]. Marketers and influencers are now obligated to disclose whether a collaboration involves a financial exchange [10]. This disclosure requirement contributes to maintaining ethical standards within the influencer marketing landscape.

Furthermore, the impact of influencer marketing is particularly pronounced among millennials, given their extensive use of social media and the Internet [2]. The pervasive influence of this marketing strategy on the millennial demographic underscores its significance in contemporary digital advertising [22].

Celebrity influencers, mega-influencers, macro-influencers, micro-influencers, and nano-influencers are the different types of influencers that Campbell and Farrell [4] identified through their classification system. There are individuals who have achieved recognition outside of social media and, as a result, have a naturally big number of followers [23]. These individuals are considered to be celebrity influencers. It is not uncommon for them to have more than one million followers, which is a result of the high price that is associated with an endorsement [24]. It is believed that they have a high degree of competence, despite the fact that they have a low engagement rate and the brand linkages tend to be poor in the endorsement. It is also possible to define mega-influencers as those who have more than one million followers [25]. There is a distinction between celebrity influencers and mega-influencers, and that distinction lies in the fact that mega-influencers have achieved recognition through their social media profiles [26].

Despite the fact that macro-influencers often have between 100,000 and one million followers, they are nevertheless considered to be among the most desirable influencers with whom to collaborate [27]. The engagement rates of these individuals are significantly higher than those of celebrities and mega-influencers, and they nevertheless create a considerable amount of reach. It is not uncommon for these influencers to be recognised for a specific domain (for example, beauty, fitness, or travel) in which their followers aspire to acquire a level of likeness to the influencer [28]. It is effective to make use of micro-influencers when the objective is to target a certain geographical area. This is because the followers that micro-influencers have are typically associated with a particular region. These individuals have a large enough following (between 10,000 and 100,000) to earn a living off of being an influencer, yet they typically collaborate with a wide variety of various businesses [29].

On the other hand, these endorsements are frequently regarded as being more real and sincere, which makes them beneficial in influencing the consumer's intention to make a purchase [30]. Finally, we have the nano-influencers, which are those who have fewer than 10,000 followers. As a consequence of this, they will not have the same capacity to influence others, but they are likely to have the highest engagement rate and the highest perceived authenticity [31]. In addition, because they have less leverage, they are more ready to be receptive to unpaid cooperation, with the reward being free products rather than monetary compensation [4]. (Figure 1).



Figure 1: Various social media marketing tools [8]

Leveraging influencers in marketing allows for the seamless integration of products into the influencer's feed, a strategy proven to be perceived as more credible and authentic compared to conventional paid advertising methods [3]; [7]. One notable impact of influencer marketing on brands is the ability to selectively target a specific audience by collaborating with influencers who align with the values and characteristics the brand wishes to project [12]. This targeted approach enables marketers to reach segments that closely match their key customer profiles, avoiding the inefficiencies associated with broad audience targeting and instead tailoring marketing efforts to resonate with specific segments [13]. The strategic alignment with influencers not only enhances authenticity but also facilitates a more precise and effective communication strategy [32].

Campbell and Farrell [4] have outlined a comprehensive categorization of influencers, identifying distinct segments based on follower counts and engagement dynamics. Celebrity influencers, renowned for achievements outside of social media, naturally amass a vast follower base, often exceeding a million [33]. Despite their relatively low engagement rates and weak brand connections in endorsements, they are perceived to possess a high level of expertise [34]. Mega-influencers, on the other hand, also boast more than a million followers but have cultivated their fame through social media platforms [35] (Figure 2).

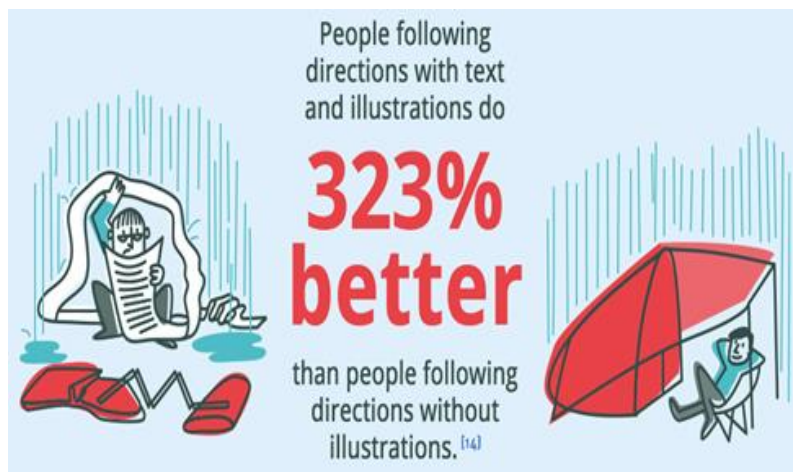


Figure 2: Effectiveness of illustration [14]

Moving down the hierarchy, macro-influencers typically maintain follower counts ranging from 100,000 to one million [15]. Despite falling short of the massive audiences commanded by celebrities and mega-influencers, macro-influencers exhibit higher engagement rates and wield significant reach, particularly within their specialized niches such as beauty, fitness, or travel [36]. Micro-influencers, with follower bases ranging from 10,000 to 100,000, become especially effective when the goal is to target specific geographical areas, as their connections are often tied to a particular region [37]. These influencers, while versatile across industries, are renowned for authenticity, contributing to their efficacy in influencing consumer purchase intentions [38].

Lastly, nano-influencers, with less than 10,000 followers, may lack the expansive reach of their counterparts but compensate with high engagement rates and perceived authenticity. Their smaller scale makes them more amenable to unpaid collaborations, often receiving free products as compensation [4]. This intricate segmentation provides valuable insights for marketers seeking to optimize their influencer marketing strategies across various tiers of influence [39].

The effectiveness of influencer marketing through Instagram:

- **Reach and Engagement:** Instagram influencers often have a substantial and engaged following. Their content is regularly consumed by users who trust and value their opinions. This reach allows companies to tap into a large and potentially interested audience [40].
- **Authenticity and Trust:** Instagram influencers are often perceived as more authentic compared to traditional advertising methods. Their followers trust them, considering their content as more genuine and relatable. As a result, recommendations or endorsements by influencers can carry significant weight in motivating purchasing decisions [41].
- **Visual Appeal:** Instagram is a visual platform, and influencers are skilled in creating aesthetically pleasing and engaging content. This visual appeal enhances the presentation of products or services, making them more attractive to potential purchasers [42].

2. Key Performance Indicators (KPIs)

Companies believe in the effectiveness of Instagram influencers due to the tangible impact on key performance indicators (KPIs) such as increased brand awareness, higher engagement rates, and, ultimately, boosted sales [43]. Tracking tools, including analytics platforms and market research, provide evidence of the positive outcomes associated with well-executed influencer marketing campaigns [44].

2.1. Instagram Influencers

Instagram influencers are individuals who leverage their social media presence, particularly on Instagram, to engage with and influence their followers. These influencers often have a significant following due to their expertise, charisma, or content quality [45]. For instance, consider fitness influencer Kayla Itsines. With millions of followers, she promotes fitness products, workout routines, and wellness brands, showcasing the impact of influencers on audience behavior (Figure 3).



Figure 3: 1. Aditya Hirlekar, 2. Akash Thapa, 3. Divija Bhasin, 4. Piyush Gurbhele,

2.2. Influencer Marketing

Influencer marketing involves collaborating with influential individuals to promote products or services. Brands identify influencers whose audience aligns with their target market. An example is Daniel Wellington's collaboration with various Instagram influencers [46]. By having influencers showcase their watches, the brand reached a broader audience and saw a surge in sales, illustrating the power of strategic influencer partnerships (Figure 4).



Figure 4: 1. Bhuvan Bam, 2. Komal Pandey, 3. Diipa Buller-Khosla, 4. Karron S Dhingra

2.3. Consumer Behavior

Consumer behavior refers to the actions and decisions consumers make when purchasing goods or services [5]. Understanding these behaviors is crucial for effective marketing. For example, Apple's marketing strategy taps into consumer preferences for sleek design and innovative technology, driving purchases based on the desire for status and cutting-edge products [47].

2.4. Social Media Marketing

Social media marketing involves using social media platforms to connect with an audience, build a brand, and drive business goals [11]. Starbucks, for instance, excels in social media marketing by creating engaging content, fostering user-generated

content through campaigns like #StarbucksCupContest, and maintaining an active online presence, leading to increased brand loyalty and customer engagement.

3. Social Media Marketing Benefits for Businesses

3.1. Branding

Social media plays a pivotal role in enhancing brand recognition and visibility, offering businesses a unique avenue to reach new customers consistently [48]. Rather than targeting the same audience repeatedly, creating profiles across major social platforms expands visibility and broadens the audience base. Initiating by acquiring Instagram followers from reputable sources establishes social proof [49]. Encouraging loyal customers and stakeholders to regularly share content amplifies reach, tapping into a wider pool of potential customers [50].

3.2. Search Engine Ranking

In addition to traditional search engine optimization efforts, social media contributes significantly to a website's search engine rankings. Integrating targeted keywords and phrases into social media posts enhances visibility on top portals. Including links to the business website in posts encourages click-throughs, redirecting users to the website [51]. The goal is to disseminate quality content widely, leveraging the power of social media to drive traffic and improve search engine rankings [52].

3.3. Customer Relationships

Humanizing the brand is a key aspect of successful social media marketing. People prefer interacting with individuals rather than faceless institutions [53]. Social media provides a platform for businesses and their employees to establish personal connections with clients [54]. Responding individually to queries and comments fosters a sense of care and empathy. Utilizing platforms like Chatfuel or SendPulse to create social media chatbots ensures continuous customer engagement, enhancing overall satisfaction [55].

3.4. Conversion Rates

The human touch introduced through social media marketing naturally boosts conversion rates. Timely responses to reviews and comments, even negative ones, build trust and loyalty among potential customers. The heightened brand awareness and visibility resulting from social media efforts contribute to improved sales figures [56].

3.5. Marketing Costs

Compared to traditional offline marketing, social media offers a cost-effective approach to advertising and marketing. Reaching millions of customers simultaneously through targeted campaigns is achievable without the need for extensive resources [57]. Paid advertising options on social media platforms allow businesses to tailor strategies based on conversion rate results, optimizing marketing costs effectively [58].

3.6. Customer Insights

Understanding customer needs and preferences is at the core of market research. Social media serves as a valuable tool for obtaining these insights [59]. Through networking with customers on these platforms, businesses can gather information on demographics, likes, and dislikes [60]. This data proves instrumental in tailoring products to the market and targeting the right audience effectively.

3.7. Product Purchases

Product purchases refer to the act of acquiring goods or services. Amazon, as an example, has revolutionized online product purchases by providing a vast selection, convenient delivery options, and personalized recommendations [6]. The ease of the purchasing process and customer reviews contribute to Amazon's dominance in facilitating product purchases.

3.8. Digital Marketing Strategy

Digital marketing strategy involves planning and executing marketing efforts across digital channels. An exemplary case is Coca-Cola's digital marketing strategy. The company utilizes social media campaigns, interactive content, and personalized

advertising to connect with consumers globally. This comprehensive approach demonstrates the importance of a well-executed digital marketing strategy in today's competitive landscape.

4. Various Aspects of Digital Marketing

Digital marketing encompasses a wide array of strategies and channels aimed at promoting businesses in the online space. From search engine optimization (SEO) to video marketing, each facet plays a crucial role in enhancing a brand's online presence and engaging with its target audience (Figure 5).



Figure 5: Various Aspects of Digital Marketing [17]

4.1. Search Engine Optimization (SEO)

SEO is the cornerstone of digital marketing, focusing on optimizing a website to improve its organic traffic. Utilizing techniques such as keyword optimization, quality content creation, backlinks, and crosslinks, digital marketing experts aim to elevate a business's ranking on search engines like Google, Yahoo, and Bing.

4.2. Online Advertising

In the realm of online advertising, marketers strategically bid for and purchase ad spaces on third-party websites. These ads, ranging from images to banners and pop-ups, are displayed on relevant platforms. Online advertising also incorporates retargeting, a technique where businesses showcase ads to visitors who have previously shown interest in their products or services.

4.3. Email Marketing

Email marketing involves reaching out to a predetermined set of customers or prospects through promotional messages. This personalized approach is an efficient way to communicate with the audience, tailoring messages to meet their specific needs.

5. Online Reputation Management (ORM)

ORM focuses on accumulating positive online reviews and strategically promoting them. Favorable reviews contribute to increased website visits, and businesses can leverage local advertising opportunities by placing ads on competitors' profiles on review-publishing websites.

5.1. Content Marketing

Content marketing involves creating and publishing high-quality online content about a business. This content, which can include whitepapers, blogs, case studies, and more, serves to inform the target audience about relevant issues and attract customers both organically and through paid initiatives.

5.2. Paid Search Marketing

Through paid search marketing, businesses enhance their online visibility by bidding for prominent keywords and securing ad space in search engine results. This strategy ensures that sponsored content is visible to users actively searching for related keywords.

5.3. Mobile Marketing

Mobile marketing targets users specifically through various mobile devices, utilizing channels such as text messages or keyword-targeted advertisements.

5.4. Video Marketing

Video marketing provides a visually engaging and collaborative way for businesses to reach customers. It allows for the broadcasting of product or service launches, notable events, and important announcements.

5.5. Programmatic Advertising

Programmatic advertising employs automated software to place website ads, enabling advertisers to target users based on browsing history, interests, User IDs (UIDs), and demographic data. This technology facilitates efficient bidding for impressions to achieve higher placement in advertisements or increase click-through rates (CTRs).

6. Proof of Effectiveness

6.1. Engagement Rates

Engagement rates on Instagram measure the interaction users have with content, including likes, comments, and shares. A high engagement rate signifies an active and involved audience. For influencers, this metric reflects the resonance of their content with followers, offering companies an indication of the effectiveness of their marketing collaborations.

Consider an influencer with 100,000 followers on Instagram. In a recent post promoting a product, the engagement metrics are as follows:

Likes: 8,000; Comments: 500; Shares: 200

To calculate the engagement rate:

Engagement Rate = (Likes + Comments + Shares) / Followers * 100

Here, Engagement Rate = (8,000 + 500 + 200) / 100,000 * 100 = 8.7%

Hence, on average, 8.7% of the influencer's followers actively engaged with the content through likes, comments, or shares. A higher engagement rate indicates a more involved and responsive audience, making the influencer's promotional efforts more effective.

6.2. Follower Growth

Follower growth represents the increase in an influencer's or company's audience over time. A steady growth in followers suggests expanding reach and influence. Companies often partner with influencers with substantial follower growth potential to maximize exposure and impact in their target market.

Consider an Instagram influencer who started the month with 100,000 followers. Over the course of the month, the influencer gained an additional 5,000 followers. The calculation for follower growth would be:

Follower growth = (New Followers/Initial Followers) × 100

In this case:

Follower growth = (5,000/100,000) × 100 = 5

This means the influencer experienced a 5% growth in followers during the specified time frame.

6.3. Conversion Rates

Conversion rates measure the percentage of users who take a desired action, such as making a purchase, after interacting with an influencer's content. High conversion rates indicate that the influencer's endorsement effectively motivates followers to become customers. Analyzing conversion rates provides valuable insights into the direct impact of influencer marketing on sales and revenue.

Consider an influencer promoting a product on Instagram. In a given period, the influencer's post resulted in:

Clicks on the product link: 1,000
Purchases made through the link: 50
To calculate the conversion rate: =
Conversion Rate=(Purchases/Clicks) ×100
In this case:
Conversion Rate = (50/1,000) ×100=5

This means that 5% of users who clicked on the product link made a purchase. A higher conversion rate suggests that the influencer's audience is not only engaged but also taking desired actions, such as making a purchase.

For real-time data on conversion rates, businesses often use tracking tools integrated with their e-commerce platforms or link-tracking features provided by Instagram. These tools allow for the monitoring and analysis of user behavior, helping to assess the effectiveness of influencer marketing campaigns in driving conversions.

7. Conclusion

In conclusion, influencer marketing on Instagram is a method that has proven to be both dynamic and impactful for businesses that are looking to increase the visibility of their brand and boost interaction. A number of important measures, including engagement rates, follower growth, and conversion rates, provide evidence that this strategy is not just effective but also highly effective. A high engagement rate indicates that the audience is active and involved, while the growth of the number of followers indicates that the audience's reach and impact are expanding. Particularly noteworthy is the fact that a good conversion rate illustrates the real impact that influencer collaborations have on driving desired behaviors, such as product purchases among consumers. Utilizing the power of authenticity, visual appeal, and the influencer's rapport with their audience, the symbiotic relationship that exists between companies and Instagram influencers continues to shape contemporary marketing landscapes. This is evidenced by the metrics that have been presented here.

Acknowledgment: We thank our family, friends, and participants in this study for supporting our research. Their constant support has helped us to complete this research smoothly.

Data Availability Statement: The study is based on the primary data source collected from the respondents.

Funding Statement: The authors received no direct funding for this research.

Conflicts of Interest Statement: No conflicts of interest are declared by the author(s). This is the author's fresh work. Citations and references are mentioned as per the used information.

Ethics and Consent Statement: Authors of the work unanimously consent to make this publication available to all interested people for reading, teaching, and learning.

References

1. A. K. Kirtiş and F. Karahan, "To be or not to be in social media arena as the most cost-efficient marketing strategy after the global recession," *Procedia Soc. Behav. Sci.*, vol. 24, pp. 260–268, 2011.
2. A. Opreana and S. Vinerean, "A New Development in Online Marketing: Introducing Digital Inbound Marketing," *Expert Journal of Marketing*, vol. 3, no. 1, pp. 29–34, 2015.
3. C. Abidin, "Visibility labour: Engaging with Influencers' fashion brands and #OOTD advertorial campaigns on Instagram," *Media Int. Aust.*, vol. 161, no. 1, pp. 86–100, 2016.

4. C. Campbell and J. R. Farrell, "More than meets the eye: The functional components underlying influencer marketing," *Bus. Horiz.*, vol. 63, no. 4, pp. 469–479, 2020.
5. D. Balasudarsun, D. Sathish, D. Venkateswaran, D. R. Byloppilly, S. Devesh, and D. M. Naved, "Predicting consumers' online grocery purchase intention within middle-class families," *Webology*, vol. 19, no. 1, pp. 3620–3642, 2022.
6. P. S. Venkateswaran, A. Sabarirajan, S. S. Rajest, and R. Regin, "The theory of the postmodernism in consumerism, mass culture and globalization," *J. Res. Lepid.*, vol. 50, no. 4, pp. 97–113, 2019.
7. F. J. Martínez-López, R. Anaya-Sánchez, M. Fernández Giordano, and D. Lopez-Lopez, "Behind influencer marketing: key marketing decisions and their effects on followers' responses," *J. Mark. Manag.*, vol. 36, no. 7–8, pp. 579–607, 2020.
8. H. Sharon, "How good is a career in digital marketing?," Quora, 2021. [Online]. Available: <https://www.quora.com/How-good-is-a-career-in-digital-marketing>. [Accessed: 07-Jan-2023].
9. J. S. More and C. Lingam, "A SI model for social media influencer maximization," *Appl. Comput. Inform.*, vol. 15, no. 2, pp. 102–108, 2019.
10. Konsumentverket.se. [Online], 2016. Available: https://www.konsumentverket.se/globalassets/publikationer/enforcement/foretagens-samverkan-med-bloggare/marketing-in-blogs_guidelines_enforcement_swedish_consumer_agency.pdf. [Accessed: 06-Jan-2023].
11. L. P. L. Cavaliere, K. Mangalasserri, P. S. Venkateswaran, R. Byloppilly, and F. Effendy, "The Impact of Brand Counterfeiting on Consumer Behavior In the Fashion Sector," *Turkish Journal of Physiotherapy and Rehabilitation*, vol. 32, no. 3, pp. 19831–19847, 2021.
12. M. De Veirman, V. Cauberghe, and L. Hudders, "Marketing through Instagram influencers: the impact of number of followers and product divergence on brand attitude," *Int. J. Advert.*, vol. 36, no. 5, pp. 798–828, 2017.
13. M. Glucksman, "The Rise of Social Media Influencer Marketing on Lifestyle Branding: A Case Study of Lucie Fink," *Elon Journal of Undergraduate Research*, vol. 8, no. 2, pp. 77–87, 2017.
14. J. Mawhinney, "52 visual content marketing statistics you should know in 2023," HubSpot, 11-Sep-2023. [Online]. Available: <https://blog.hubspot.com/marketing/visual-content-marketing-strategy>. [Accessed: 15-Sep-2023].
15. M. T. P. M. B. Tiago and J. M. C. Verissimo, "Digital marketing and social media: Why bother?," *Bus. Horiz.*, vol. 57, no. 6, pp. 703–708, 2014.
16. S. Liu, C. Jiang, Z. Lin, Y. Ding, R. Duan, and Z. Xu, "Identifying effective influencers based on trust for electronic word-of-mouth marketing: A domain-aware approach," *Inf. Sci. (Ny)*, vol. 306, pp. 34–52, 2015.
17. DSIM Udaipur, UiDM - Udaipur Institute of Digital Marketing, 10-Jan-2020. [Online]. Available: <https://www.uidm.in/dsim-udaipur/>. [Accessed: 07-Jan-2023].
18. A. Kanaan-Jebna, A. S. Baharudi, and T. T. Y. Alabdullah, "Entrepreneurial orientation, market orientation, managerial accounting and manufacturing SMEs satisfaction," *J. Acc. Sci.*, vol. 6, no. 1, pp. 1–14, 2021.
19. A. Sabarirajan, L. T. Reddi, S. Rangineni, R. Regin, S. S. Rajest, and P. Paramasivan, "Leveraging MIS technologies for preserving India's cultural heritage on digitization, accessibility, and sustainability," in *Advances in Business Information Systems and Analytics*, IGI Global, USA, pp. 122–135, 2023.
20. T. T. Y. Alabdullah, I. Al-Fakhri, E. Ries, and K.-J. Abdulkarim, "Empirical study of the influence of board of directors' feature on firm performance," *Russ. J. Agric. Socio-econ. Sci.*, vol. 119, no. 11, pp. 137–146, 2021.
21. M. M. Abbassy, "Opinion mining for Arabic customer feedback using machine learning," *J. Adv. Res. Dyn. Control Syst.*, vol. 12, no. SP3, pp. 209–217, 2020.
22. M. M. Abbassy and W. M. Ead, "Intelligent Greenhouse Management System," in *2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS)*, India, 2020.
23. D. Damodaran, "A Linkage Between Service Quality and Customer Satisfaction - By Indian Commercial Banks," *Journal of Engineering & Management International Research*, vol. 8, no. 3, pp. 1957–1962, 2017.
24. D. Damodaran, "The Impact of The Colour of The Packaging Influencing the Buyer's Purchase Intent," *International Journal of Recent Technology and Engineering*, vol. 8, no. 4, pp. 8822–8826, 2019.
25. D. Lavanya, S. Rangineni, L. T. Reddi, R. Regin, S. S. Rajest, and P. Paramasivan, "Synergizing efficiency and customer delight on empowering business with enterprise applications," in *Advances in Business Information Systems and Analytics*, IGI Global, USA, pp. 149–163, 2023.
26. W. M. Ead and M. M. Abbassy, "Intelligent Systems of Machine Learning Approaches for Developing E-Services Portals," *EAI Endorsed Trans Energy Web*, vol. 8, no. 33, p. e12, Dec. 2020.
27. M. M. Abbassy and A. Abo-Alnadr, "Rule-based emotion AI in Arabic customer review," *Int. J. Adv. Comput. Sci. Appl.*, vol. 10, no. 9, 2019.
28. I. Muda, M. S. Almahairah, R. Jaiswal, U. K. Kanike, M. W. Arshad, and S. Bhattacharya, "Role of AI in Decision Making and Its Socio-Psycho Impact on Jobs, Project Management and Business of Employees," *Journal for ReAttach Therapy and Developmental Diversities*, vol. 6, no. 5s, pp. 517–523, 2023.

29. I. Muda, M. Salameh Almahairah, R. Jaiswal, U. Kumar Kanike, M. W. Arshad, and S. Bhattacharya, "Role of AI in Decision Making and Its Socio-Psycho Impact on Jobs, Project Management and Business of Employees"," JRTDD, vol. 6, no. 5s, pp. 517–523, 2023.
30. J. Kumar, S. Rana, V. Rani, and A. Ahuja, "What affects organic farming adoption in emerging economies? A missing link in the Indian agriculture sector," *Int. J. Emerg. Mark.*, 2023, Press.
31. J. Żywiołek and F. Schiavone, "Perception of the quality of smart city solutions as a sense of residents' safety," *Energies*, vol. 14, no. 17, p. 5511, 2021.
32. W. M. Ead and M. M. Abbassy, "A general cyber hygiene approach for financial analytical environment," in *Financial Data Analytics*, Cham: Springer International Publishing, Singapore, 2022, pp. 369–384.
33. J. Żywiołek, "Monitoring of information security system elements in the metallurgical enterprises," *MATEC Web Conf.*, vol. 183, p. 01007, 2018.
34. J. Żywiołek, M. Matulewski, and G. Santos, "The Kano model as a tool for assessing the quality of hunting tourism - a case from Poland," *Int. J. Qual. Res.*, vol. 17, no. 3, pp. 1097–1112, 2023.
35. K. Batool, Z.-Y. Zhao, M. Irfan, and J. Żywiołek, "Assessing the role of sustainable strategies in alleviating energy poverty: an environmental sustainability paradigm," *Environ. Sci. Pollut. Res. Int.*, vol. 30, no. 25, pp. 67109–67130, 2023.
36. S. Derindere Köseoğlu, W. M. Ead, and M. M. Abbassy, "Basics of Financial Data Analytics," in *Financial Data Analytics*, Cham: Springer International Publishing, Singapore, 2022, pp. 23–57.
37. M. Lishmah Dominic, P. S. Venkateswaran, L. T. Reddi, S. Rangineni, R. Regin, and S. S. Rajest, "The synergy of management information systems and predictive analytics for marketing," in *Advances in Business Information Systems and Analytics*, IGI Global, USA, pp. 49–63, 2023.
38. I. Mert, *Assessment of accounting evaluation practices: A research-based review of turkey and Romania*. Cham: Springer International Publishing, Singapore, 2022.
39. N. Geethanjali, K. M. Ashifa, A. Raina, J. Patil, R. Byloppilly, and S. S. Rajest, "Application of strategic human resource management models for organizational performance," in *Advances in Business Information Systems and Analytics*, IGI Global, USA, pp. 1–19, 2023.
40. J. Żywiołek, "Personal data protection as an element of management security of information," *Multidisciplinary Aspects of Production Engineering*, vol. 2, no. 1, pp. 515–522, 2019.
41. P. S. Venkateswaran, M. L. Dominic, S. Agarwal, H. Oberai, I. Anand, and S. S. Rajest, "The role of artificial intelligence (AI) in enhancing marketing and customer loyalty," in *Advances in Business Information Systems and Analytics*, IGI Global, USA, pp. 32–47, 2023.
42. R. K. Gupta, "A study on occupational health hazards among construction workers in India," *Int. J. Enterp. Netw. Manag.*, vol. 12, no. 4, p. 325, 2021.
43. R. K. Gupta, "Adoption of mobile wallet services: an empirical analysis," *Int. J. Intellect. Prop. Manag.*, vol. 12, no. 3, p. 341, 2022.
44. T. T. Y. Alabdullah, I. Al-Fakhri, E. R. Ahmed, and A. Kanaan-Jebna, "Corporate Governance System and Firm Financial Performance," *Acta Scientific Computer Sciences*, vol. 4, no. 6, pp. 97–103, 2021.
45. R. Regin and T. Shynu, "Electronic Tourism as A Destination Marketing Strategy for World Travellers"," *Central Asian Journal of Mathematical Theory and Computer Sciences*, vol. 4, no. 5, pp. 9–28, 2023.
46. R. Regin, S. S. Rajest, T. Shynu, and R. Steffi, "Relationship Between Employee Loyalty and Job Satisfaction in an Organization," *European Journal of Life Safety and Stability*, no. 12, pp. 54–73, 2023.
47. R. Steffi, T. Shynu, S. S. Rajest, and R. Regin, "Performance of Employees in Relation to The Effects of Change Management Practices," *Central Asian Journal of Innovations on Tourism Management and Finance*, vol. 4, no. 12, pp. 1–23, 2023.
48. S. Chahal, "Navigating financial evolution: Business process optimization and digital transformation in the finance sector," *International Journal of Finance*, vol. 8, no. 5, pp. 67–81, 2023.
49. S. Chahal, "Unlocking Educational Excellence: A Digital Transformation Approach through Business Process Optimization and the Role of Agile Project Management to Overcome Barriers to Successful Transformation," *Journal of Economics & Management Research*, vol. 193, no. 4, pp. 2–5, 2023.
50. S. Kolachina, S. Sumanth, V. R. C. Godavarthi, P. K. Rayapudi, S. S. Rajest, and N. A. Jalil, "The role of talent management to accomplish its principal purpose in human resource management," in *Advances in Business Information Systems and Analytics*, IGI Global, USA, pp. 274–292, 2023.
51. S. R. Steffi, R. Rajest, and T. Shynu, "Developing Banking Sector Strategies Amid Economic Turmoil," *International Journal on Economics, Finance and Sustainable Development*, vol. 5, no. 4, pp. 78–100, 2023.
52. S. Singh, S. S. Rajest, S. Hadoussa, and A. J. Obaid, "Data-Driven Intelligent Business Sustainability," in *Advances in Business Information Systems and Analytics*, R. Regin, Ed., IGI Global, USA, 2023.
53. S. Singh, S. S. Rajest, S. Hadoussa, and A. J. Obaid, "Data-driven decision making for long-term business success," in *Advances in Business Information Systems and Analytics*, R. Regin, Ed., IGI Global, USA, 2023.

54. S. Suman Rajest, T. Shynu, R. Regin, and R. Steffi, "An Individualized Recommendation and Promotional System for Tourist Attractions," *Central Asian Journal of Theoretical and Applied Science*, vol. 4, no. 5, pp. 64–84, 2023.
55. S. Taneja and V. Jain, "Modelling of critical success factors of AMT implementation using TISM and SEM," *Int. J. Bus. Perform. Manag.*, vol. 24, no. 1, p. 22, 2023.
56. T. Shynu, S. Rajest, and R. Regin, "Analysis of the Impact of Employee Training and Development on Performance"," *Central Asian Journal of Innovations on Tourism Management and Finance*, vol. 4, no. 6, pp. 1–25, 2023.
57. T. Shynu, S. Rajest, R. Regin, and R. Steffi, "Corporate Governance and Family Involvement as Performance Factors," *Spanish Journal of Innovation and Integrity*, vol. 25, no. 12, pp. 76–94, 2023.
58. T. T. Y. Alabdullah and E. R. Ahmed, "New Insights to Investigate the Impact of Internal Control Mechanisms on Firm Performance: A Study in Oman," *Riset Akuntansi dan Keuangan Indonesia*, vol. 6, no. 2, pp. 205-214, 2021.
59. U. K. Kanike, "Factors disrupting supply chain management in manufacturing industries," *Journal of Supply Chain Management Science*, vol. 4, no. 1–2, pp. 1–24, 2023.
60. U. K. Kanike, "Impact of ICT-Based Tools on Team Effectiveness of Virtual Software Teams Working from Home Due to the COVID-19 Lockdown: An Empirical Study," *International Journal of Software Innovation*, vol. 10, no. 1, pp. 1–20, 2023.