



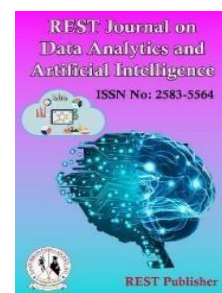
# REST Journal on Data Analytics and Artificial Intelligence

Vol: 3(3), September 2024

REST Publisher; ISSN: 2583-5564

Website: <http://restpublisher.com/journals/jdaai/>

DOI: <https://doi.org/10.46632/jdaai/3/3/3>



## The Impact of Social Networking Functionalities on Online Shopping Using TOPSIS Method

\*<sup>1</sup>Ramesh Peramalasetty, <sup>2</sup>Mary Teresa, <sup>3</sup>B. Rupa Devi, <sup>4</sup>S.Z. Parveen

<sup>1</sup>Vemu Institute of Technology, Pakala, Andhra Pradesh, India.

<sup>2</sup>Guru Nanak Institutions Technical Campus, Hyderabad, Telangana, India.

<sup>3</sup>Annamacharya Institute of Technology and Sciences, Tirupati. Andhra Pradesh, India.

<sup>4</sup>Annamacharya Institute of Technology and Sciences, Kadapa, Andhra Pradesh, India.

\*Corresponding author: [prameshce@vemu.org](mailto:prameshce@vemu.org)

**Abstract:** Social networking services companies have introduced groundbreaking tool to connect with their customer base (Montgomery and Chester, 2009). The widespread adoption of these platforms, especially among the youth, has positioned social networking as an effective means for businesses to engage with their additionally, businesses perceive social networking as a valuable tool for enhancing internal communication (Ryann, 2012). Recognizing the significance of maintaining customer relationships, companies actively collaborate on social networking sites (SNS) as they understand the motivation behind customer engagement (Meadow-Kluge, 2008). Shin's (2009) research delves deeper into this realm, uncovering the competitive advantage that online marketers gain through innovative use of internet communication tools. (Greenrooms, 1994). Social network providers enable users to create targeted market segments through profile information, allowing companies to tailor their advertisements to specific customer demographics. The potential for improved communication among people through social media has led many industries to actively embrace and utilize this medium. However, the suitability of this new media is particularly pronounced in one industry: higher education institutions, especially among the traditional college-age population. Social networking has become the predominant means of communication, prompting universities to adapt to current trends and engage with both current and prospective students through these evolving technologies (Gruber, 2009). The Academic Center for Undergraduate Students of Applied Research (ECAR) and Information Technology Research in 2008 define social networking sites as internet platforms that enable individuals to create semi-generic profiles within a defined setting. Users can connect with others, share information, and establish connections and relationships within a specific community. To make informed decisions in the realm of social networking and communication, Institutions of Higher Education Unity of Ideal Solution(Topy's) method is preferred Joining for order. classical, in spaced and obscure versions This multi-criteria decision making available (MCTM) approach, from the negative solution Considering the distance is widely used to determine the optimal alternative. Real numbers, interval data or Various kinds of fuzzy numbers The TOPSIS method evaluates the input values Ultimately based on these criteria Establishes a ranking. Event creation and management, smart event recommendations, attendance tracking, in-app event promotion and collaborative planning. User activity metrics, community growth, event success metrics and monetization impact. the Ranking of Social Networking Functionalities. Podcasting is got the first rank whereas is Wikis is having the Lowest rank.

**Keywords:** Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking.

### 1. INTRODUCTION

Generated Content and user collaboration involve activities within social networking sites. This study focuses on two prominent social networking platforms, with Facebook being a key model for user interactions among online resellers. Confidence is built through website features, emphasizing convenience and information quality. The comparison of Internet advantages highlights the benefits for e-commerce, providing an interactive and user-friendly environment conducive to central communication with customers. Maintaining relationships and close crucial, given the endorsement of social networking sites (SNSs) by organizations seeking motivation (Meadow-kluge, 2008). Delving deeper into the topic, shin's (2009) exploration reveals competitive advantages for online

sellers through innovative tools within the reach of internet communication. [1]. prevalent trend within companies. This phenomenon has sparked discussions regarding its impact on office dynamics, particularly in relation to social media's influence on employee productivity within higher education settings [2]. Access to social networks spans across multiple organizational levels, involving an individual's connections on various platforms, such as FOAF. Understanding relationships through social links is unidirectional and perpetual, making access control crucial. For instance, while Alice can view general content and establish contact with Bob, initiating direct communication requires approval in the reverse direction. This communication layer operates differently, necessitating specific directions for link approval, ensuring the accuracy of information sourced from social networking platforms. Online social networking sites remain highly popular, with a vast majority of computer and internet users actively engaging in various platforms. However, there are some users who choose not to participate in at least one online social network. These websites cater to diverse user needs and offer a range of standard functions, Friendship, Personal These social networks operate on a centralized, internet-based structure and are intrinsic to social networks' peer-to-peer and participatory nature. The peer-to-peer application allows for mapping to infrastructure, considering locality for direct links, ensuring independence with mobile peers, and facilitating internet connection [3]. In recent years, Facebook, Twitter and Online like Orkut Social Networks (OSNs) have become popular. experienced significant and exponential growth. These OSNs play a crucial role in shaping real-world social relationships and providing various virtual interactions to their users, with developers offering instructions for engagement [6]. The broad perspective of social networking site consumers has been the subject of extensive studies. Despite the considerable challenges and opportunities presented to companies in these domains, there is limited research conducted in this area. Many companies, despite their substantial investments, face significant failures and embarrassments, with media often more inclined to report on these instances rather than success stories in the realm of Social technology. of n site application Some studies, Facebook and Some public social networking sites like LinkedIn, found in an organizational context. (DeMarco and Millen 2007; Steels and Grading 2009). Additionally, there is mention of the use of private, internal sites by some organizations (Bryzowski 2009; DeMarco et al. 2008; Richter et al. 2008; Koch 2008; Romeo 2008) [7]. Online social networks have been identified as highly suitable for organizational purposes, with their main characteristics highlighted. These networks serve as platforms for individuals to connect with each other based on mutual interests, fostering passionate and professional relationships within groups. They provide a means for individuals with similar values, interests, and objectives to share ideas and take collective responsibility within a network. The resulting discussion groups are comprised of people with related identities. These social networks, primarily located on the internet, act as effective channels for communication, facilitating the propagation and absorption of new elements [9]. It is essential to keep the elderly cognitively and physically active and socially active The term "social networks" refers to platforms that facilitate emotional support, encourage elderly engagement, and foster social interactions. Older individuals utilize online networks to connect with others, despite not always knowing fellow users, in order to address various concerns. This paper introduces a novel method that integrates online social networking with service networks, aiming to enhance activities and connections within these platforms. [10] In a favorable social-networking environment, web services collaborate by integrating with one another due to their complementary functions. For instance, Billing-WS and Customer-was Within the only positive social network can be connected seamlessly, Because of illing requirements.

Mostly the customer Varies by species. Conversely, in an unfavorable social-networking setting, internet services tend to compete with each other due to their overlapping functions, as observed in Shipper-WS and Delivery-WS. Despite this, they can still operate within the negative social network, utilizing different channels to deliver goods to customers. It's worth noting that online services in negative social-networking scenarios can also contribute to positive social-networking dynamics [11]. The research detailed in this paper investigates especially Facebook-like On popular social networking sites pay attention. These sites in RE activities such as elicitation Make it easy to participate We examine that, prioritization, and negotiation. Drawing inspiration from the Easy Win method and leveraging the ubiquitous nature of social networking sites, we have developed an RE approach aimed at enhancing end-user engagement. Such approaches in RE have the potential to increase participation among end users, including those who are geographically dispersed, enabling them to asynchronously communicate their needs. We anticipate that this approach will be particularly beneficial allowing for the identification of system requirements. Our findings from three exploratory studies shed light on these dynamics [12]. Understanding and adapting to the dynamic nature of user behavior in online environments, as discussed earlier, presents a significant challenge in Networked Learning Research. Numerous structures and models have been developed and utilized within networked learning environments to guide the development of learning systems and to analyze behavioral patterns. These frameworks serve as both a tool for understanding practices and as a foundation for constructing effective learning environments. They offer a specific perspective on practices, enabling researchers to view and interpret them in a particular manner. For instance, some frameworks focus on communication aspects of practice, while others emphasize the contextual factors surrounding these practices [13]. Online social networks Integral to Internet engagement emerged as components, Considerable as a mainstream media platform have gained

influence. Regardless of geographical constraints, these digital platforms for internet users Engage in social interactions, Communicate and nurture Innovative and captivating ways introducing After that, explaining privacy attacks, to disclose sensitive user data Social network analysis and we define integration of mining methods. Finally, focus on privacy Forthcoming research with Comprehensible in the face of attempts The chapter discusses barriers [14]. Fusion of social networking and the integration of mobile computing are mobile social networks (MSN) leading to the emergence of applications, they are of considerable importance Innovative application types are expected to be introduced. Mobile users are increasingly taking advantage of opportunities to build communities, Growing and mutually beneficial Cultivate fearful relationships. The convergence of mobile applications and social networks is steadily progressing, incorporating increasingly indispensable elements. Leor prevalence et learn large diffusion sent inevitable, jaunt un role essential dans la coordination et la consolidation de cash comminutes. Laces an Internet mobile a regalement catalyst le development des premieres applications de Roseaux Sochaux, tent dans la literature scientifique que sur le marché de masse, avec de nombreux exemples illustre cite evolution. Danes les dues cash, importance croissant de cash dues modes creek one dynamique inevitable conduisant a one consolidation significate [15].

## 2. MATIRIALS AND METHOD

**Event Creation and Management:** LA gestation devotement's implied la creation et la maintenance d'un avengement, constituent un processus de pacification qui extend du début Justus la realization de avengement. Ce processus compared divers aspects, tells que le choir initial d'un questionnaire devotement's, la determination du moment, de emplacement et du theme de avengement, anise que la prize de decisions de pacification.

**Smart Event Recommendation:** La gestation devotement's Smart Event represented one solution complete off rant one visibility et one analyses directed grace a la medicine legal. Elle permit analyses des avengement's a travers des rapports details et facility la commandé des avengement's de security.

**Attendance Tracking's:** Vaus souhaitez surveilled la frequentation au fil du temps, Vaus poured unregister quotidiennement la listed des presents sur use simple faille de calculi, sur un Marceau de paper, or meme dins un document électronique. Assurez vous de noted la date pour reference future. Use nature method pour verifier la presence consisté a utiliser un caser pour unregister les entrées.

**In-App Event Promotion:** Revises la legend a valiant a utiliser one punctuation appropriated. Élites usage excessive de majuscules, declamation, et de signs de punctuation tells que "miller" or "#1". Élites les allegations unverifiable, comma "avengement sportive". Limited regalement utilization de mots superflus.

**Collaborative Planning:** LA pacification collaborative, actuellement a course de development a tent que theory dominant, engage de multiples party's pennants dans la discussion des preoccupations communes. Elle vise an atteindre un consensus dans la prize de decisions polities et favorite la participation du public a utilizing diverse methods.

**User Activity Metrics:** Les niveaux engagement des utilisateurs sur voter site web or via differences applications prevent are values a measuring le number dutilisateurs actives et le Nivea engagement. Pour can faire, tout le traffic dirge verbs un utilisateur specified east analyses a laid de Google Analytics. Catted analyses permit de determiner le Nivea engagement de claue utilisateur, avec claue identifying asocial extant regalement envoy pour use evaluation plus approfondie.

**Community Growth:** "Social Development" encompasses a company's efforts to establish and enhance community engagement. This involves fostering and reinforcing various forms of community participation, which can include practical or product-oriented communities comprising users, customers, contributors, champions, and influencers. These communities, while diverse in nature, share the common goal of facilitating interaction and collaboration among their members. Through ongoing initiatives, companies strive to build robust communities that cater to the needs and preferences of their constituents, ultimately contributing to the overall advancement of social development.

**Event Success Metrics:** Events are built over time and acquire context as they go, whereas metrics are updated individually and do not have the same context.

**Monetization Impact:** To monetize an item Benefits Increased revenue, Access to new customers and marketing the products on a large scale including capacity. Monetizing a product, selling, through subscriptions or advertising Opportunity to earn income Can deliver to businesses.

**TOPSIS Method:** TOPSIS, Multi-Criteria Decision Making (MCTM) An important method is, Because of its effectiveness Widely used. Favorable and unfavorable attributes Consider the best solution Based on proximity Selected Alternatives Basis for ranking It serves the purpose. The TOPSIS methodology has three main components Variations include: Classical, spaced and obscure, each is a different type for input evaluation results are tailored They are real numbers, Interval data or fuzzy numbers. This adaptability ensures that the method can effectively handle diverse decision-making scenarios, making it a versatile tool in decision analysis [16]. In 1981, Hwang et al. introduced the which is described in the paragrah. Its widespread adoption and straightforwardness

stem from its ability to assess multiple criteria in Multi-Criteria Decision Making (MCDM). Furthermore, its versatility is evident in its applicability to a wide range of problems with alternative solutions. In the computational process of TOPSIS, vector normalization is employed along with the distance calculations to ascertain the relative proximity of each alternative to these solutions. Finally, positive and for better solutions of the negative Alternatives are ranked based on their proximity. The methodology has been cited in various studies for its efficacy, including those by Byun and Lee (2005), Chitosan and Banihabib (2015), Sureeyatanapas et al. (2018), and others. Additionally, it mentions Satie's (1980) Analytic Hierarchy Process (AHP) and its integration into the TOPSIS methodology by Zuid and Fuchs-Han [17]. Practical Steps Listed below is the TOPSIS methodology (Rao, 2007): Step 1: Define the goal and appropriate TOPSIS is based on the fundamental premise that the best solution has the shortest distance from the positive-ideal solution, and the longest distance from the negative-ideal one. Alternatives are ranked with the use of an overall index calculated based on the distances from the ideal solutions [18]. Towards improved solutions Unity is the essence of the Topy's system, it is real value data by analyzing to facilitate effective decision making is a designed technique. This approach is multi-criteria Lead for Decision Making (MCTM). Notable as one of the methods has gained traction. In TOPSIS, apart from simple summation, more sophisticated and to create balanced outcomes Weighted aggregation and locality Measurement methods are used. Diversified end results to expand its applicability Aimed at delivering We propose different aggregation techniques and thus from different perspectives We foster reconciliation. In this thesis, for TOPSIS We present a general method, clarifying its basics and its methodology for addressing ambiguous decision-making situations with a discussion of extension Let's start. Necessary for efficient implementation of Fuzzy TOPSIS method We also outline initial steps and anticipate relevant challenges We emphasize the need to confront. Study of Fuzzy Extensions and modified local by combining criteria, we demonstrate how TOPSIS can be adapted to a weighted sum framework, this paves the way for improved decision-making processes. Section 2 of this paper explores the fundamental aspects of the TOPSIS method, fuzzy decision making to accommodate the circumstances Its formal extension and Succession of Fuzzy Topic Method Includes development. To be executed precisely Emphasizing the need solution is required before implementation We identify and address key challenges. Within this section, the classical TOPSIS method and We elucidate its ambiguous initial extension stages, at the local level How to weigh some changes can be explained quantitatively We clarify that. In a 2003 study by Yu, many attribute problems Topic method is used to solve, specifically focusing on determining optimal and non-optimal best solutions. Within this solution the optimal solution denoted as  $+V+$  is among the available options Corresponds to the best value. Conversely, the negative best solution, denoted  $-V-$ , denotes an unfavorable outcome, each indicator value is in options Indicates poor value.  $+V+$  and  $-V-$  preparation by comparison) method tipsy (Technique for Sequential Selection of Optimal Solution Hwang et al Created by Yoon [23]. TOPSIS is for decision makers Introduced by the group It is a method of group decision making. (DMs) to address process problems, especially in real-life situations subjective judgments and Objective information must be reconciled. This method is subjective and objective Considering the factors, Alternatives on multiple criteria Positive ideal to evaluate and Uses the concept of negative ideal points. characterized by ambiguity and multiple decision criteria in contexts, TOPSIS provides a framework for solving such problems. Specifically, it's every alternative performance and evaluation, Triangular fuzzy numbers and Using linguistic variables It also involves determining the weighting of the criteria. The method is excellent points and Involves comparing alternatives against separation matrices. To illustrate provided examples from a manufacturing context, Especially robot selection and in prototyping process selection problems Through these examples, of the TOPSIS method in practical decision-making contexts Validity and usefulness are demonstrated. [24]. This research evaluates the efficiency of Shopping websites in terms of conversion, utilizing a technique to prioritize them accordingly. The approach involves A multi-attribute approach for decision making known as TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) is viewed as a geometric system that functions in an n-dimensional space that represents different options. The best option is determined by taking into account the distance to the negative-optimal resolution and the shortest path to the positive-best answer identified [25]. This study, including electives Accurate on most criteria and including imprecise (precision) values, to select the appropriate RP setting presents a method. For this purpose, a MADM method, TOPSIS its efficient and Because of the simple technique Adopted as a decision support system. capabilities of existing RP systems A new test strip that defines accuracy and integrative analysis designed to derive ratings for numerically valued attributes such as strength, and reflect user preferences. [26]. Our research contribution is normalization techniques an evaluative approach to assessment. Here, we have six well-known We focus on normalization techniques and the TOPSIS method. Proposed evaluation procedure for use in TOPSIS of the best normalization technique Provides eryrobust evaluation and selection. [27]. They are both from compromise programming Means "closeness to the ideal" obtained are based on an aggregation function. Linear normalization in VIKOR and Vector normalization scale in TOPSIS Both are used to remove units of functions and an aggregation function representing "closeness to ideal" derived from compromise programming. Based on Linear normalization in VIKOR and Vector normalization in TOPSIS is used to remove units of scale functions [28]. In this thesis, of coal mining safety Comprehensive assessment model Entropy is established using weight and The TOPSIS method, applied to four

coal mines, serves the purpose of evaluating security conditions and enhancing safety management levels, thereby ensuring safe coal production. It also contributes to confirming the efficacy of safety measures implemented in these mines. To construct a comprehensive assessment model involving multiple indicators, it becomes imperative to assign weights to these indices [29]. In this study, the entropy weighting technique leverages the inherent information of the indices, while the utilization of an expert scoring system effectively mitigates subjectivity, resulting in more precise outcomes. Moreover, the paper outlines the determination of the optimal solution, negative ideal solution, and rough approximation, employing TOPSIS to approximate the safety conditions of coal mines based on their respective values. [30].

### 3. RESULTS AND DISCUSSION

TABLE 1. Social Networking Functionalities

	Content Generating	Sharing	Interacting	Collaboratively Socializing
Blogs	31.08	139.53	29.15	22.05
Wikis	29.12	142.97	33.69	27.30
Photo Sharing	24.08	122.58	29.18	23.10
Video Sharing	25.37	128.28	24.60	17.59
Podcasting	33.33	186.41	27.96	18.89
Social bookmarking	10	24	15	10

Table 1 Shows the Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing, Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking it is also data set value. From the figure 1 and table 1 it is seen that Podcasting is showing the Highest Value for Content Generating and Social bookmarking is showing the lowest value. Podcasting is showing the Highest Value for Sharing and Social bookmarking is showing the lowest value. Wikis is showing the Highest Value for Interacting and Social bookmarking is showing the lowest value. Wikis is showing the Highest Value for Collaboratively Socializing and Social bookmarking is showing the lowest value

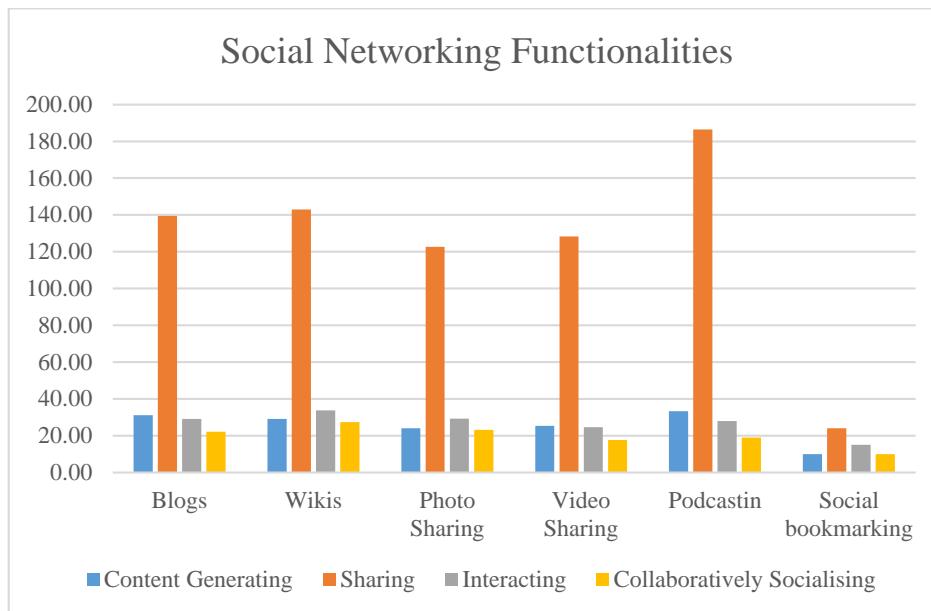


FIGURE 1. Social Networking Functionalities

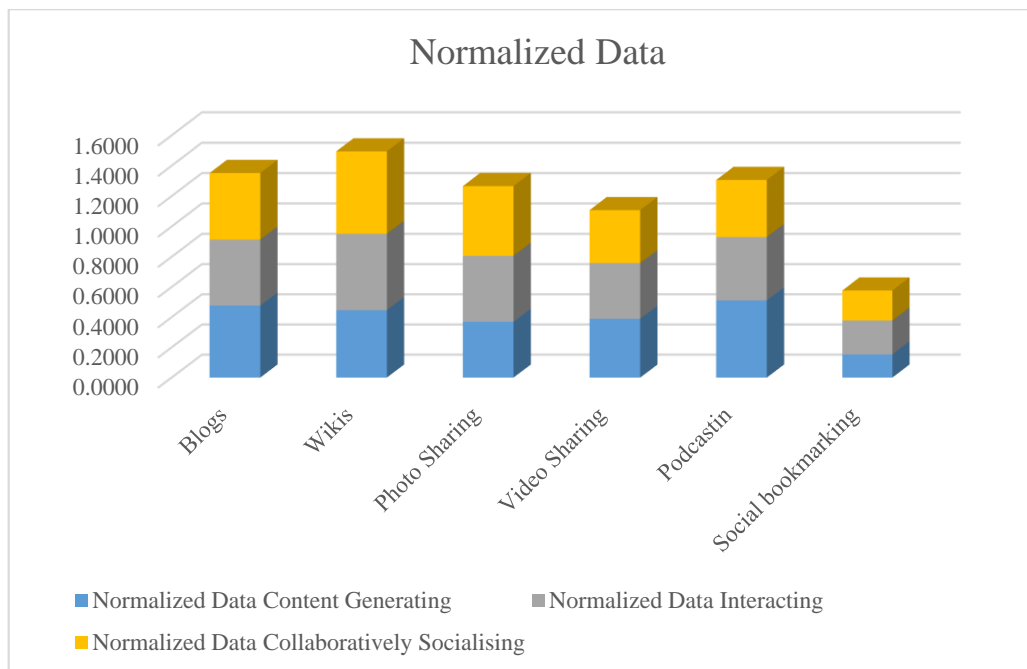
Figure 1 Shows the Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing, Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking it is also data set value. From the figure 1 and table 1 it is seen that Podcasting is showing the Highest Value for Content Generating and Social bookmarking is showing the lowest value. Podcasting is showing the Highest Value for Sharing and Social bookmarking is showing the lowest value. Wikis is showing the Highest Value for Interacting and Social bookmarking is showing the lowest value. Wikis is showing the Highest Value for Collaboratively Socializing and Social bookmarking is showing the lowest value

is showing the Highest Value for Interacting and Social bookmarking is showing the lowest value. Wikis is showing the Highest Value for Collaboratively Socializing and Social bookmarking is showing the lowest value.

**TABLE 2.** Normalized Data

	<b>Content Generating</b>	<b>Sharing</b>	<b>Interacting</b>	<b>Collaboratively Socializing</b>
Blogs	0.4768	0.4724	0.4371	0.4383
Wikis	0.4468	0.4840	0.5051	0.5426
Photo Sharing	0.3694	0.4150	0.4375	0.4591
Video Sharing	0.3892	0.4343	0.3688	0.3496
Podcasting	0.5114	0.6311	0.4192	0.3755
Social bookmarking	0.1534	0.0813	0.2249	0.1988

Table 2 shows the various Normalized Data for Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking it is also data set value.



**FIGURE 2.** Normalized Data

Figure 2 shows the various Normalized Data for Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking it is also data set value.

**TABLE 3.** Weightages

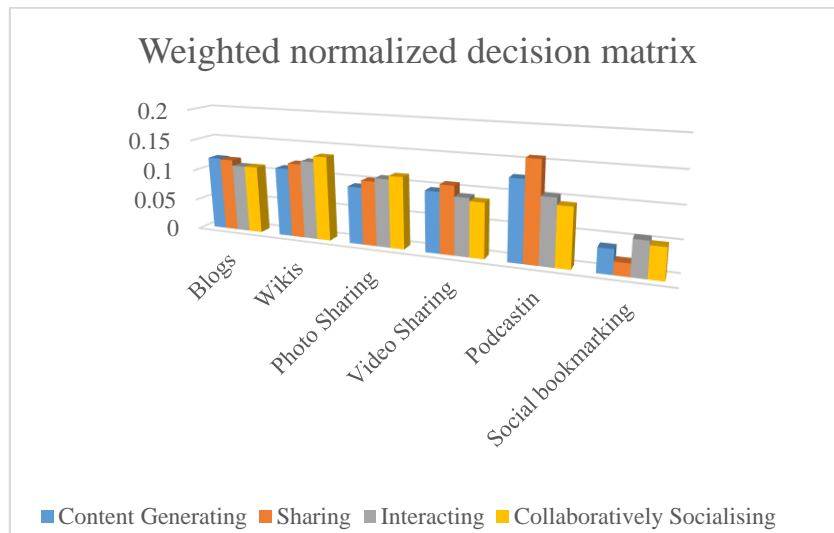
Blogs	0.25	0.25	0.25	0.25
Wikis	0.25	0.25	0.25	0.25
Photo Sharing	0.25	0.25	0.25	0.25
Video Sharing	0.25	0.25	0.25	0.25
Podcasting	0.25	0.25	0.25	0.25
Social bookmarking	0.25	0.25	0.25	0.25

Table 3 Shows the Weightages is the common value.

**TABLE 4.** Weighted normalized decision matrix

Blogs	0.1192	0.1181	0.1093	0.1096
Wikis	0.1117	0.1210	0.1263	0.1357
Photo Sharing	0.0924	0.1037	0.1094	0.1148
Video Sharing	0.0973	0.1086	0.0922	0.0874
Podcastin	0.1278	0.1578	0.1048	0.0939
Social bookmarking	0.0384	0.0203	0.0562	0.0497

Table 4 shows the Weighted normalized decision matrix for Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking it is also data set value.



**FIGURE 3.** Weighted normalized decision matrix

Figure 3 shows the Weighted normalized decision matrix for Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social bookmarking it is also data set value.

**TABLE 5.** Positive and Negative Matrix

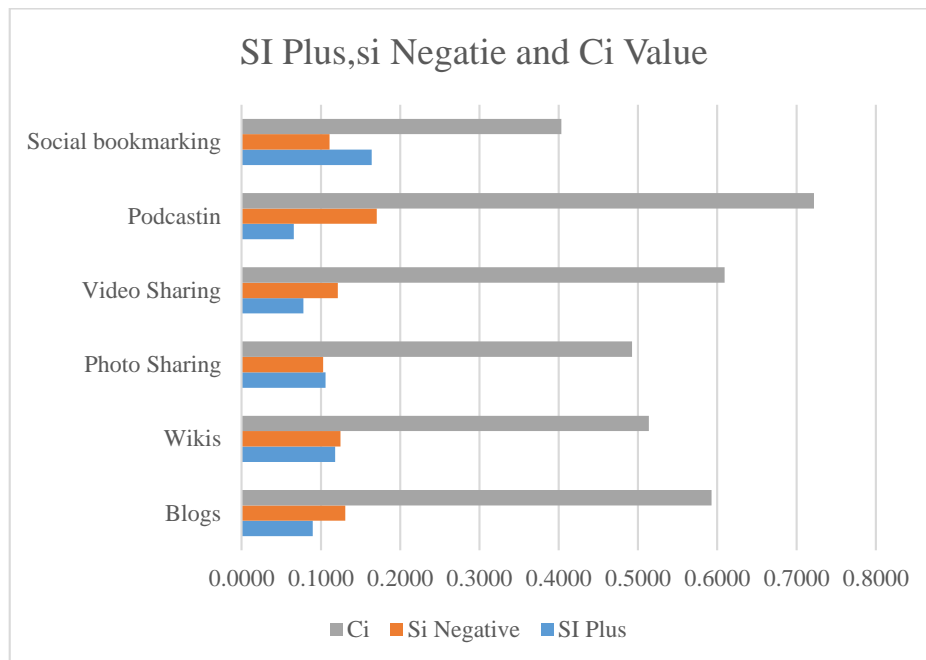
	Positive Matrix				Negative matrix			
Blogs	0.1278	0.1578	0.0562	0.0497	0.0384	0.0203	0.1263	0.1357
Wikis	0.1278	0.1578	0.0562	0.0497	0.0384	0.0203	0.1263	0.1357
Photo Sharing	0.1278	0.1578	0.0562	0.0497	0.0384	0.0203	0.1263	0.1357
Video Sharing	0.1278	0.1578	0.0562	0.0497	0.0384	0.0203	0.1263	0.1357
Podcastin	0.1278	0.1578	0.0562	0.0497	0.0384	0.0203	0.1263	0.1357
Social bookmarking	0.1278	0.1578	0.0562	0.0497	0.0384	0.0203	0.1263	0.1357

Table 5 shows the Positive and Negative Matrix for Social Networking Functionalities for Analysis using the TOPSIS Method. Content Generating, Sharing Interacting, Collaboratively and Socializing. Blogs, Wikis, Photo Sharing, Video Sharing, Podcasting and Social Bookmarking in various Positive Matrix in Maximum value 0.1278, 0.1578 Minimum value 0.0562, 0.0497 is taken and for Negative matrix the Minimum value 0.0384, 0.0203 and Maximum value 0.1263, 0.1357 is taken.

**TABLE 6.** Final Result of Social Networking Functionalities

	SI Plus	Si Negative	Ci	Rank
Blogs	0.0897	0.1306	0.5929	3
Wikis	0.1179	0.1246	0.5137	4
Photo Sharing	0.1060	0.1030	0.4927	5
Video Sharing	0.0779	0.1215	0.6092	2
Podcastin	0.0657	0.1706	0.7221	1
Social bookmarking	0.1640	0.1109	0.4034	6

Table 6 shows the final result of TOPSIS for Social Networking Functionalities. Figure 3 shows the TOPSIS Analysis Result of Alternative Energy Exploitation. In Table 6, Si positive is calculated using the formula (3). From figure 3, In Si positive, Social bookmarking is having is Higher Value and Podcasting is having Lower value. Si Negative is calculated using the formula (4). In Si Negative, Podcasting is having is Higher Value Alternative Photo Sharing is having Lower value. Ci is calculated using the formula (5). In Ci, Podcasting is having is Higher Value and Alternative Social bookmarking is having Lower value.



**FIGURE 4.** Result of Social Networking Functionalities

Figure 3 shows the TOPSIS Analysis Result of Alternative Energy Exploitation. In Table 6, Si positive is calculated using the formula (3). From figure 3, In Si positive, Social bookmarking is having is Higher Value and Podcasting is having Lower value. Si Negative is calculated using the formula (4). In Si Negative, Podcasting is having is Higher Value Alternative Photo Sharing is having Lower value. Ci is calculated using the formula (5). In Ci, Podcasting is having is Higher Value and Alternative Social bookmarking is having Lower value.



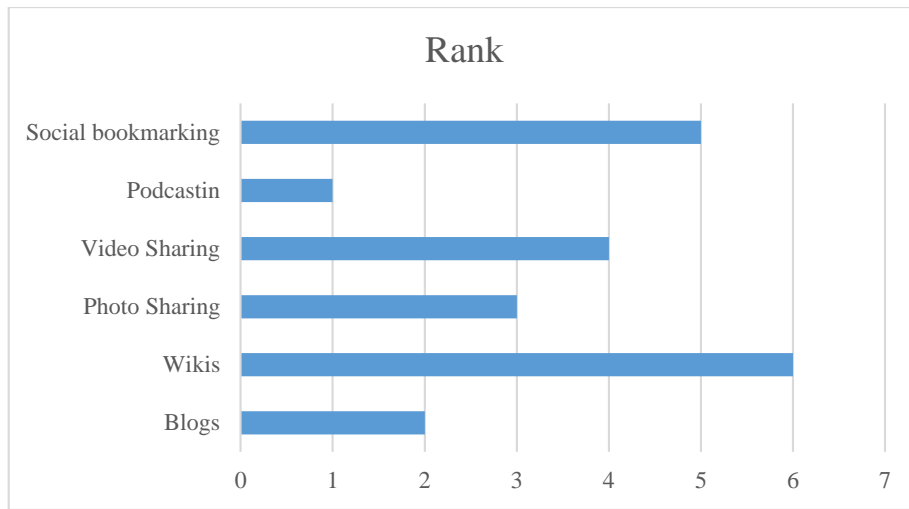


FIGURE 5. Rank

Figure 4 Shows the Ranking of Social Networking Functionalities. Podcasting is got the first rank whereas is Wikis is having the Lowest rank.

#### 4. CONCLUSION

Social networking services companies have introduced a groundbreaking tool to connect with their customer base (Montgomery and Chester, 2009). The widespread adoption of these platforms, especially among the youth, has positioned social networking as an effective means for businesses to engage with their additionally, businesses perceive social networking as a valuable tool for enhancing internal communication (Ryann, 2012). Recognizing the significance of maintaining customer relationships, companies actively collaborate on social networking sites (SNS) as they understand the motivation behind customer engagement (Meadow-Kluge, 2008). Shin's (2009) research delves deeper into this realm, uncovering the competitive advantage that online marketers gain through innovative use of internet communication tools. (Greenrooms, 1994). Social network providers enable users to create targeted market segments through profile information, allowing companies to tailor their advertisements to specific customer demographics. The potential for improved communication among people through social media has led many industries to actively embrace and utilize this medium. Generated Content and user collaboration involve activities within social networking sites. This study focuses on two prominent social networking platforms, with Facebook being a key model for user interactions among online resellers. Confidence is built through website features, emphasizing convenience and information quality. The comparison of Internet advantages highlights the benefits for e-commerce, providing an interactive and user-friendly environment conducive to central communication with customers. Maintaining relationships and close c crucial, given the endorsement of social networking sites (SNSs) by organizations seeking motivation (Meadow-kluge, 2008). Delving deeper into the topic, shin's (2009) exploration reveals competitive advantages for online sellers through innovative tools within the reach of internet communication. prevalent trend within companies. This phenomenon has sparked discussions regarding its impact on office dynamics, particularly in relation to social media's influence on employee productivity within higher education settings. To make informed decisions in the realm of social networking and communication, Institutions of Higher Education Unity of Ideal Solution(Topy's) method is preferred Joining for order. classical, in spaced and obscure versions This multi-criteria decision making available (MCTM) approach, from the negative solution Considering the distance is widely used to determine the optimal alternative. Real numbers, interval data or Various kinds of fuzzy numbers The TOPSIS method evaluates the input values Ultimately based on these criteria Establishes a ranking. Event creation and management, smart event recommendations, attendance tracking, in-app event promotion and collaborative planning. User activity metrics, community growth, event success metrics and monetization impact. the Ranking of Social Networking Functionalities. Podcasting is got the first rank whereas is Wikis is having the Lowest rank.

#### REFERENCES

- [1]. Ho, Ree, and Doug Vogel. "The impact of social networking functionalities on online shopping: an examination of the web's relative advantage." *International Journal of Business Information Systems* 16, no. 1 (2014): 25-41.
- [2]. Breslin, John, and Stefan Decker. "The future of social networks on the internet: The need for semantics." *IEEE Internet Computing* 11, no. 6 (2007): 86-90.

- [3]. Rooksby, John, and Ian Sommerville. "The management and use of social network sites in a government department." *Computer Supported Cooperative Work (CSCW)* 21 (2012): 397-415.
- [4]. Pai, Peiyu, and David C. Arnott. "User adoption of social networking sites: Eliciting uses and gratifications through a means–end approach." *Computers in Human Behavior* 29, no. 3 (2013): 1039-1053.
- [5]. Rodrigues, Joel JPC, Filipe MR Sabino, and Liang Zhou. "Enhancing e-learning experience with online social networks." *IET communications* 5, no. 8 (2011): 1147-1154.
- [6]. Boll, Friederike, and Philipp Brune. "Online support for the elderly–why service and social network platforms should be integrated." *Procedia Computer Science* 98 (2016): 395-400.
- [7]. Maamar, Zakaria, Leandro Krug Wives, Youakim Badr, Said Elnaffar, Khoulood Boukadi, and Noura Faci. "Linkedws: A novel web services discovery model based on the metaphor of “social networks”." *Simulation Modelling Practice and Theory* 19, no. 1 (2011): 121-132.
- [8]. Seyff, Norbert, Irina Todoran, Kevin Caluser, Leif Singer, and Martin Glinz. "Using popular social network sites to support requirements elicitation, prioritization and negotiation." *Journal of Internet Services and Applications* 6, no. 1 (2015): 1-16.
- [9]. Conole, Grainne, Rebecca Galley, and Juliette Culver. "Frameworks for understanding the nature of interactions, networking, and community in a social networking site for academic practice." *The international review of research in open and distributed learning* 12, no. 3 (2011): 119-138.
- [10]. Bellavista, Paolo, Rebecca Montanari, and Sajal K. Das. "Mobile social networking middleware: A survey." *Pervasive and Mobile Computing* 9, no. 4 (2013): 437-453.
- [11]. Maamar, Zakaria, Leandro Krug Wives, Youakim Badr, Said Elnaffar, Khoulood Boukadi, and Noura Faci. "Linkedws: A novel web services discovery model based on the metaphor of “social networks”." *Simulation Modelling Practice and Theory* 19, no. 1 (2011): 121-132.
- [12]. Seyff, Norbert, Irina Todoran, Kevin Caluser, Leif Singer, and Martin Glinz. "Using popular social network sites to support requirements elicitation, prioritization and negotiation." *Journal of Internet Services and Applications* 6, no. 1 (2015): 1-16.
- [13]. Conole, Grainne, Rebecca Galley, and Juliette Culver. "Frameworks for understanding the nature of interactions, networking, and community in a social networking site for academic practice." *The international review of research in open and distributed learning* 12, no. 3 (2011): 119-138.
- [14]. Krishnamurthy, Balachander, and Craig E. Wills. "Characterizing privacy in online social networks." In *Proceedings of the first workshop on Online social networks*, pp. 37-42. 2008.
- [15]. Bellavista, Paolo, Rebecca Montanari, and Sajal K. Das. "Mobile social networking middleware: A survey." *Pervasive and Mobile Computing* 9, no. 4 (2013): 437-453.
- [16]. Andrzej, Kobryń, and Prystrom Joanna. "A Data Pre-Processing Model for the Topsis Method." *Folia Oeconomica Stetinensia* 16, no. 2 (2016): 219-235.
- [17]. Çelikkilek, Yakup, and Fatih Tüysüz. "An in-depth review of theory of the TOPSIS method: An experimental analysis." *Journal of Management Analytics* 7, no. 2 (2020): 281-300.
- [18]. Sarkar, Asis. "A TOPSIS method to evaluate the technologies." *International Journal of Quality & Reliability Management* 31, no. 1 (2013): 2-13.
- [19]. Liu, Peide. "Multi-attribute decision-making method research based on interval vague set and TOPSIS method." *Technological and economic development of economy* 15, no. 3 (2009): 453-463.
- [20]. Kobryń, Andrzej, and Joanna Prystrom. "A data pre-processing model for the TOPSIS method." *Folia Oeconomica Stetinensia* 16, no. 2 (2016): 219-235.
- [21]. Çelikkilek, Yakup, and Fatih Tüysüz. "An in-depth review of theory of the TOPSIS method: An experimental analysis." *Journal of Management Analytics* 7, no. 2 (2020): 281-300.
- [22]. Huang, Jingwen. "Combining entropy weight and TOPSIS method for information system selection." In *2008 IEEE conference on cybernetics and intelligent systems*, pp. 1281-1284. IEEE, 2008.
- [23]. Chen, Ting-Yu, and Chueh-Yung Tsao. "The interval-valued fuzzy TOPSIS method and experimental analysis." *Fuzzy sets and systems* 159, no. 11 (2008): 1410-1428.
- [24]. Vahdani, Behnam, S. Meysam Mousavi, and Reza Tavakkoli-Moghaddam. "Group decision making based on novel fuzzy modified TOPSIS method." *Applied Mathematical Modelling* 35, no. 9 (2011): 4257-4269.
- [25]. Sun, Chia-Chi, and Grace TR Lin. "Using fuzzy TOPSIS method for evaluating the competitive advantages of shopping websites." *Expert systems with applications* 36, no. 9 (2009): 11764-11771.

- [26]. Byun, H. S., and K. H. Lee. "A decision support system for the selection of a rapid prototyping process using the modified TOPSIS method." *The International Journal of Advanced Manufacturing Technology* 26 (2005): 1338-1347.
- [27]. Vafaei, Nazanin, Rita A. Ribeiro, and Luis M. Camarinha-Matos. "Data normalisation techniques in decision making: case study with TOPSIS method." *International journal of information and decision sciences* 10, no. 1 (2018): 19-38.
- [28]. Huang, Yubo, and Wen Jiang. "Extension of TOPSIS Method and its Application in Investment." *Arabian Journal for Science and Engineering* 43 (2018): 693-705.
- [29]. Şengül, Ümran, Miraç Eren, Seyedhadi Eslamian Shiraz, Volkan Gezder, and Ahmet Bilal Şengül. "Fuzzy TOPSIS method for ranking renewable energy supply systems in Turkey." *Renewable energy* 75 (2015): 617-625.
- [30]. Li, Xiangxin, Kongsan Wang, Liwen Liu, Jing Xin, Hongrui Yang, and Chengyao Gao. "Application of the entropy weight and TOPSIS method in safety evaluation of coal mines." *Procedia engineering* 26 (2011): 2085-2091.